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IN THE

Supreme Court of the United States

OCTOBER TERM, 1944.

No. 56

SOUTHERN PACIFIC COMPANY, a corporation.

Appellant,

vs.

STATE OF ARIZONA, ex rel. JOE CONWAY, Attorney General of the State of Arizona.

Appellee.

BRIEF FOR APPELLEE.

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SUBJECT INDEX.

PAGE

I.

Opinions below.....	1
---------------------	---

II.

Jurisdiction	2
--------------------	---

III.

Statement of the case.....	3
1. The state statute.....	3
2. The present suit.....	4
Local conditions.....	7
The effect of the state law on interstate commerce.....	8
The facts respecting safety.....	10
The trial court's findings and judgment.....	11
The appeal to the State Supreme Court.....	13

IV.

Summary of argument.....	14
1. The Train Limit Law does not invade an exclusive national field of legislation.....	14
2. Extra-territorial effect and burden on interstate commerce are one and the same thing.....	15
3. The Train Limit Law does not invade a field already occupied by Congress by Sections 1 and 9 of the Safety Appliance Act or by Section 25, Part I of the Interstate Commerce Act.....	16
4. The determination of the validity of the Train Limit Law rests solely upon the determination of whether upon the whole record it is possible to say that the law is without rational basis in safety. The Train Limit Law has a rational basis in safety.....	18
5. The decision of the State Supreme Court, in reversing the trial court, did not deny to appellant any federal right to which, on the evidence, appellant is entitled.....	19

Argument	26
1. The Train Limit Law does not invade an exclusive national field of legislation.....	20
Appellant's burden evidence.....	42
2. Extra-territorial effect and burden on interstate commerce are one and the same thing.....	52
3. The Train Limit Law does not invade the field already occupied by Congress by Sections 1 and 9 of the Safety Appliance Act or by Section 25, Part I, of the Interstate Commerce Act.....	57
A. The fields occupied by the federal statutes are different from that occupied by the Arizona law.....	58
(1) The field occupied by the Safety Appliance Act	58
(2) The field occupied by Section 25 of Part I of the Interstate Commerce Act.....	62
(3) The field occupied by the Arizona law.....	66
B. No intention can be attributed to Congress in enacting the federal statutes to occupy the field of regulating train lengths.....	66
C. There is no conflict between the federal statutes and the Arizona law.....	69
D. Assuming arguendo that Section 25 of Part I of the Interstate Commerce Act contemplates authority in the Commission to regulate train lengths, occupancy of this field has not occurred.....	77
4. The Arizona law is not unconstitutional because of claimed burden upon, or interference with, interstate commerce, or because of alleged unreasonableness as a safety regulation	78
A. The extent of the burden on interstate commerce, if any, by reason of the Train Limit Law may not be	

considered by the court in determining the reasonableness of the law..... 80

(a) Under the Commerce Clause..... 81

(b) Under the Fourteenth Amendment..... 82

(c) Under the Commerce Clause and the Fourteenth Amendment..... 84

B. The Arizona Train Limit Law has a rational relation to safety..... 93

(a) Slack action, accidents and injuries related to train lengths..... 93

(b) Slack action accidents are directly related to the number of cars in a train..... 99

(c) The severity of injuries resulting from slack action have a direct relation to the number of cars in a train..... 100

(d) The danger to the public from slack action has a direct relation to the number of cars in a train..... 102

(e) Strains on weak parts increase in quantity and quality as each car is added (accidents due to failure of equipment)..... 106

(f) Increase in difficulty of communications between employees as the length of the train increases..... 108

(g) The ability to observe defects in the train decreases as the length of the train increases..... 109

(h) Fear of injury reduces the efficiency of trainmen..... 111

(i) Long trains will not reduce the casualties due to negligence of employees..... 112

(j) Grade crossing accidents..... 114

(k) Interstate Commerce Commission Service Order No. 85..... 119

C. The appellant's safety evidence.....	121
(a) The national evidence.....	121
(b) The Arizona-Nevada comparison.....	135
(c) Los Angeles division casualty statistics.....	138
(d) New Mexico casualty statistics.....	140
(e) Santa Fe casualty statistics.....	142
(f) Chesapeake & Ohio casualty statistics.....	143
D. Hazards of passenger train operation.....	144
(a) Slack action increases as the length of the train increases	144
(b) Lack of necessary station facilities for handling passenger trains without public discomfort, in- convenience and risk of injury.....	145
(c) The increased weight of the train—which in- creases with each car added—increases the haz- ard of passenger train operation.....	146
(d) The time which employees have to give to the care and attention of the train decreases as the length of the train increases.....	146
E. Summary of safety argument.....	147
5. The decision of the State Supreme Court, in reversing the trial court, did not deny to appellant any federal right to which, on the evidence, appellant is entitled.....	149
Conclusion	152

TABLE OF AUTHORITIES CITED.

CASES.	PAGE
Adkins v. Children's Hospital, 261 U. S. 525.....	91
Arizona Copper Co. v. Hammer, 250 U. S. 400.....	87
Atlantic C. L. R. Co. v. Georgia, 234 U. S. 280.....	8, 14, 15, 16, 17, 18, 27, 30
.....	33, 37, 40, 54, 55, 67, 85
Bayside Fish Flour Co. v. Gentry, 297 U. S. 422.....	88
Bradley v. Ohio, 289 U. S. 92.....	15, 26, 28, 40
Buck v. Kuykendall, 267 U. S. 307.....	28
Bush v. Malloy, 267 U. S. 317.....	28
California v. Thompson, 313 U. S. 109.....	34, 35, 36, 40
Chicago & A. R. Co. v. Tranbarger, 238 U. S. 67.....	18, 83
Chicago, Burlington & Quincy Railroad Co. v. McGuire, 219 U. S. 549.....	87
Chicago, R. I. & P. R. Co. v. Arkansas, 219 U. S. 453.....	16, 19, 30, 35, 54, 84
Clark v. Gray, 306 U. S. 583.....	13, 14, 15, 19, 87, 90
Cloverleaf Butter Co. v. Patterson, 315 U. S. 148.....	17, 68, 69
Delaware & H. Co. v. United States, 5 F. (2d) 831.....	64
Erie R. R. Co. v. Board of Comm., 254 U. S. 294.....	18, 82, 83, 85
Erie R. R. Co. v. Williams, 233 U. S. 685.....	19, 87, 89, 90
Gant v. Oklahoma City, 289 U. S. 98.....	88
Gibbons v. Ogden, 9 Wheat. 1.....	14, 15, 26
Hannibal & St. J. R. Co. v. Husen, 95 U. S. 465.....	38
Hennington v. Georgia, 163 U. S. 290.....	30, 85
H. P. Welch Co. v. New Hampshire, 306 U. S. 79.....	68, 77, 78
International R. Co. v. Railroad Comm. of Texas, 281 S. W. 1084, aff'd 275 U. S. 503.....	17, 67
Johnson v. Southern Pacific Company, 196 U. S. 1.....	16, 58
Kansas Southern Ry. v. Kaw Valley District, 233 U. S. 75.....	37

Kelly v. Washington, 302 U. S. 1.....	17, 66, 69, 72
Lehigh Valley R. Co. v. Board of Comm., 278 U. S. 24.....	18, 82, 83, 85, 86
Lempke v. Farmers' Grain Co., 258 U. S. 50.....	38
Ludwig v. Western Union Co., 216 U. S. 146.....	89
Mauer v. Hamilton, 309 U. S. 598.....	16, 53, 68
McLean v. Arkansas, 211 U. S. 539.....	87
Minnesota Rate Cases, 230 U. S. 352.....	14, 15, 21, 25, 30, 31, 33, 35
Missouri, K. T. & R. v. Haber, 169 U. S. 613.....	14, 17, 26, 30, 69, 85
Missouri Pac. R. Co. v. Boone, 270 U. S. 466.....	121
Missouri, P. R. Co. v. Norwood, 283 U. S. 249.....	16, 30, 35, 54, 62, 85
Missouri P. R. Co. v. Omaha, 235 U. S. 131.....	18, 83
Mountain Timber Co. v. Washington, 243 U. S. 219.....	89, 90
Nashville etc. R. Co. v. Alabama, 128 U. S. 96.....	14, 15, 18, 27, 29, 34
Nashville, C. & St. L. R. Co. v. White, 276 U. S. 456.....	18, 19, 83, 84, 87
Napier v. Atlantic Coast Lines, 272 U. S. 605.....	16, 32, 37, 59, 68, 72
New York C. R. Co. v. United States, 265 U. S. 41.....	17, 72, 73
New York, N. H. & H. R. Co. v. New York, 165 U. S. 628.....	14, 15, 16, 18, 28, 35, 40, 41, 54, 84
Norfolk & W. R. Co. v. Conley, 236 U. S. 605.....	19, 150, 151
Oregon-Washington R. & N. Co. v. Washington, 270 U. S. 87.....	32, 37, 38
Parker v. Brown, 317 U. S. 341.....	17, 34, 35, 36, 69
Pennsylvania Co. v. U. S., 241 Fed. 824.....	73
Peoria Ry. Co. v. United States, 263 U. S. 528.....	17, 67

	PAGE
Power Brake Investigation Case, 91 F. C. C. 481.....	16, 65
Savage v. Jones, 225 U. S. 501.....	17, 66
Schollenberger v. Pennsylvania, 171 U. S. 1.....	38
Seaboard Air Line Ry. v. Blackwell, 244 U. S. 310.....	37, 38
Smith v. Alabama, 124 U. S. 465.....	14, 15, 18, 27, 30, 34, 40, 84
South Carolina Hy. Dept. v. Barnwell Bros., 303 U. S. 177.....	13, 14, 15, 16, 18, 19, 27, 31, 34, 35
	36, 53, 83, 84, 86, 90, 148, 150
Sproles v. Binford, 286 U. S. 284.....	16, 53
St. Louis, I. M. & S. R. Co. v. Arkansas, 240 U. S. 518.....	30, 84
Standard Oil Co. v. Graves, 249 U. S. 389.....	89
Standard Oil Co. v. Marysville, 279 U. S. 582.....	88
Stephenson v. Binford, 287 U. S. 251.....	19, 87, 88, 89
Tanner v. Little, 240 U. S. 369.....	87
Terminal R. Assn. v. Brotherhood of R. Trainmen, 318 U. S. 1.....	14, 16, 17, 19, 30, 54, 56, 67, 85
Truax v. Corrigan, 257 U. S. 312.....	19, 150, 151
United States v. Baltimore and O. R. Co., 176 Fed. 114.....	61
United States v. Butler, 297 U. S. 1.....	89
United States v. California, 297 U. S. 175.....	16, 59
United States v. Carolene Products Co., 304 U. S. 144.....	90
United States v. Grand Rapids & I. Ry.....	17, 72, 73
United States v. Great Northern R. Co., 229 Fed. 927.....	73
United States v. Pere Marquette R. Co., 211 Fed. 220.....	61
Virginian Ry. Co. v. United States, 223 Fed. 748.....	72, 73, 109
West v. Kansas Natural Gas Co., 221 U. S. 229.....	38
Wilson v. Merchants' L. & T. Co., 113 U. S. 121.....	19, 149
Young, Ex parte, 209 U. S. 123.....	89, 90

MISCELLANEOUS.

PAGE

24 Congressional Record 1273.....	60
House Report No. 456, 66th Cong., 1st Sess., p. 22.....	63
House Report No. 456, 75th Cong., 1st Sess.....	64
House Report No. 650, 66th Cong., 2nd Sess., p. 70.....	63
House Report No. 1678, 52nd Cong., 1st Sess.....	59
House Report No. 9350, 52nd Cong., 1st Sess. (Act of Mar. 2, 1893).....	59
House Report No. 15144, 57th Cong., 1st Sess.....	61
Interstate Commerce Commission Service Order No. 85.....	119, 120
Senate Report No. 245, 75th Cong., 1st Sess.....	64
Senate Report No. 1049, 52nd Cong., 1st Sess.....	60
1 Sharfman, The Interstate Commerce Commission, p. 275ff.....	64

STATUTES.

Act of Aug. 26, 1937 (c. 818, 50 Stat. 835), amending Sec. 25.....	62
Arizona Code, 1939, Sec. 21-1028.....	151
Boiler Inspection Act (45 U. S. C. 22-34).....	58
Commerce Clause (Art. I, Sec. 8, par. 3).....	5
Constitution of the United States, Fourteenth Amendment, Sec. 1.....	5
Interstate Commerce Act, Part I, Sec. 25.....	
.....10, 57, 63, 70; 71, 74, 75, 77	
Interstate Commerce Act, Sec. 25, Subsec. (b) (49 U. S. C. 25(b)).....	62
Interstate Commerce Commission Act, Sec. 1, Subs. (10)-(17). (49 U. S. C. 1 (10)-(17)).....	119, 120
Judicial Code, Sec. 237(a) (28 U. S. C. 344(a)).....	2
Motor Carrier Act, Sec. 204(a).....	77
Safety Appliance Act, Sec. 1 (Act of Mar. 2, 1893, c. 196, 27 Stat. 531).....	58

ix.

	PAGE
Safety Appliance Act, Sec. 1.....	16, 57, 58, 70, 71
Safety Appliance Act, Sec. 9.....	16, 57, 58, 61, 70, 71
Safety Appliance Act, Sec. 11.....	58
Safety Appliance Act, Sec. 12.....	58
Safety Ash Pan Act (45 U. S. C. 17-22).....	58
Transportation Act (1920), Sec. 441 (41 Stat. 498).....	63
United States Constitution, Fourteenth Amendment.....	79

INDEX TO APPENDIX:

	PAGE
1. I. C. C. Service Order No. 85.....	1
2. Safety Appliance Act, Secs. 1 and 9.....	4
3. Interstate Commerce Act, Sec. 25, Part I.....	5

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vs.

STATE OF ARIZONA, ex rel. JOE CONWAY, Attorney General of the State of Arizona;

Appellee.

BRIEF FOR APPELLEE.

I.

OPINIONS BELOW.

The opinion of the Supreme Court of Arizona [R. 4055-4068] is reported in 145 Pac. (2d) 540; the separate dissenting opinion of Honorable Henry D. Ross, a judge of that court [R. 4068-4071], is reported in 145 Pac. (2d) 536. The official (Arizona State) report is not yet in print.

The Memorandum Opinion of the trial court (the Superior Court of Arizona, in and for the County of Pima) is reproduced in the printed record [R. 4042-4054], but is not officially reported.

II.

JURISDICTION.

Issues under the Constitution and laws of the United States (viz., the Commerce Clause, and the Due-Process Clause of the 14th Amendment; and the Safety Appliance and Interstate Commerce Acts) were duly presented to the Superior Court of Arizona, in a suit brought in that court by the State of Arizona (the present appellee), for the recovery of penalties for alleged violations of the Arizona Train Limit Law, the statute hereinafter quoted in full. That court ruled in favor of appellant upon such issues, holding that the Train Limit Law is invalid because in violation of said constitutional provisions and statutes, and rendered its judgment for appellant accordingly, February 11, 1942 [R. 4039-4041].

Upon appeal by the State to the Supreme Court of Arizona (the highest court of that state), the judgment of the Superior Court was reversed, the State Supreme Court (one judge dissenting) holding, on December 23, 1943, that the challenged statute is valid under the Federal Constitution and laws. Final judgment upon the mandate [R. 4072-4073] of the State Supreme Court was thereupon entered February 5, 1944 [R. 4073-4074]. The present appeal from said judgment was duly presented and allowed March 7, 1944 [R. 4081-4082]. Jurisdiction of this Court is invoked under Section 237(a) of the Judicial Code (28 U. S. C. 344(a)).

The order of this Court noting probable jurisdiction herein was entered May 1, 1944 [R. 4088].

III.

STATEMENT OF THE CASE.

1. The State Statute.

The Arizona Train Limit Law* was enacted by the Arizona Legislature in 1912, and approved by a vote of the electors of the State at a referendum election on November 5, 1912.

The Train Limit Law reads as follows:

"An Act limiting the numbers of cars in a train.

"Section 1. It shall be unlawful for any person, firm, association, company or corporation, operating any railroad in the State of Arizona, to run, or permit to be run, over his, their, or its line of road, or any portion thereof, any train consisting of more than seventy freight, or other cars, exclusive of caboose.

"Section 2. It shall be unlawful for any person, firm, association, company or corporation, operating any railroad in the State of Arizona, to run, or permit to be run, over his, their, or its line of road, or any portion thereof, any passenger train consisting of more than fourteen cars.

"Section 3. Any person, firm, association, company, or corporation, operating any railroad in the State of Arizona, who shall willfully violate any of the provisions of this act, shall be liable to the State of Arizona for a penalty of not less than one hundred dollars, nor more than one thousand dollars, for each offense; and such penalty shall be recovered, and

*Hereafter referred to throughout this brief for convenience, as the "Train Limit Law".

suits therefor brought by the attorney general or under his direction, in the name of the State of Arizona, in any county through which such railroad may be run or operated, provided, however, that this act shall not apply in cases of engine failures between terminals.

"Section 4. All acts and parts of acts in conflict with the provisions of this act are hereby repealed."

2. The Present Suit.

The present suit was begun by a complaint filed by the Attorney General of the State of Arizona [R. 1-4] in the Superior Court of Arizona, in and for the County of Pima, in which complaint the State was named as plaintiff and the Appellant as defendant. The complaint alleged that in Pima County, Arizona, on March 2, 1940, Appellant operated a long* passenger train, and a long freight train on April 4, 1940, in violation of the Train Limit Law, and prayed judgment for the statutory penalties.

On May 9, 1940, Appellant filed its answer [R. 5-32] in which, after admitting the operation of the two trains named in the complaint, it alleged that each of said trains consisted in large part of cars moving in interstate commerce and carrying interstate traffic, and denied that either of said operations was willful violation of the law.

For a further separate and affirmative defense to the complaint, Appellant alleged that the law was and is void, invalid and unconstitutional, because in violation of the

*Throughout this brief trains of more than 70 cars exclusive of caboose, and passenger trains of more than 14 cars (the limits fixed by the Train Limit Law) are called "long" trains; trains conforming to these limits are called short trains.

Commerce Clause (Article I, Section 8, par. 3) of the Constitution of the United States, the Due-Process Clause of Section 1 of the 14th Amendment to the Constitution of the United States, and the corresponding Due-Process Clause set forth in Article II, Section 4, of the Constitution of Arizona, in that: (a) the law undertakes to regulate a subject-matter of national concern which, if required to be regulated at all, is subject to regulation only by Congress pursuant to the powers granted by the Commerce Clause; (b) the necessary effect of the law is to regulate Appellant's train operations extra-territorially, that is to say, beyond the boundaries of Arizona; (c) the law directly and substantially interferes with, delays, and regulates Appellant's interstate train operations in Arizona and the adjacent states; (d) the law imposes direct and substantial burdens upon the Appellant's interstate train operations; (e) the law, to the extent that it has, or is intended or claimed to have, the effect of limiting the number of cars in a train to that number which can be safely and effectively controlled or stopped by the use of air brakes and other appurtenances now in use on such trains, is in conflict with and an infringement upon existing Federal legislation having the same or similar purposes, enacted by Congress pursuant to its powers under the Commerce Clause; (f) the law deprives Appellant of its property unreasonably and arbitrarily in violation of the due-process clauses of the State and Federal Constitutions above referred to, for the reason, among others, that it bears no reasonable relation to health or safety, and does not eliminate or reduce any present hazard, but on the contrary creates certain hazards which would not otherwise exist, and increases other hazards of railroad operation in numerous respects.

At the time the complaint was filed, an order was entered by the Superior Court staying all other prosecutions under the law, pending final determination of the present suit [R. 5].

The trial of the cause commenced on November 19, 1940, and, with numerous recesses, continued to and including May 1, 1941. Evidence consisting of oral testimony and of exhibits was presented by both the Appellant and the Appellee.

Many of the ultimate facts in the case are in dispute. The evidence offered by Appellant largely consisted of statistical exhibits and explanatory testimony. Although the data underlying these exhibits were mostly reports made by the carriers to the I. C. C. and the exhibits generally are not challenged as being incorrect reproductions or summaries of such government reports (except where they incompletely or inaccurately summarize or catalogue certain accident reports), certain of the inferences and ultimate facts drawn therefrom by the Appellant are challenged here. Oral testimony in addition to that aforementioned was offered by Appellant and also Appellee. This testimony for the most part dealt with certain phases of railroad operation, including such subjects as operation of brakes, slack and slack action, accidents and the duties and experiences of employees. There is disagreement between the parties as to what ultimate facts are proved by much of the evidence.

In the ensuing statement we summarize certain of the ultimate facts, upon which our contentions are based and which we think will be found upon review of the record by this Court.

Local Conditions

Appellant's lines in Arizona are subject to local conditions affecting the operation of its trains which are different from the conditions obtaining in many other states. While there are stretches of tangent (straight) track, there are many sectors where curves are frequent and severe. [Exhibits 309, 310; R. 2209, 2210]. The railroad also crosses a number of elevations, some being parts of mountain ranges. There are five "helper districts" on Appellant's lines in Arizona, i. e., localities where the grades are so steep, that the locomotive or locomotives pulling a train must be "helped" by use of an additional locomotive in such district. [Ex. 175, R. 1284]. The operation is mainly single-track operation, although there are sections of double track eastward from Yuma, and from Tucson. Duplication of east-west lines over much of the territory make possible the use of "alternate" routes whereby, for example, the preponderance of west bound traffic may be routed over the so called E. P. & S. W. route from El Paso via Douglas to Mescal and Picacho via Phoenix to Yuma, and east bound traffic may be routed from Yuma via Gila Bend, and Lordsburg to El Paso. In comparison, curves and grades in Nevada are not nearly as severe, and the operation is essentially double tracked. [Ex's. 306, 307, 308, 175; R. 2187, 1284]. Arizona is subject to sand storms and strong wind conditions not present at least to the same degree, in Nevada. It will be judicially noticed that the population of Arizona is not as great, and the number of highways are not so numerous or as densely traveled, as in many other states, although the population, and density of highways and traffic thereon is not as great in Nevada as in Arizona.

These local conditions are not encountered at all in many places in the United States, as in the flat western country or water level routes, and in territory where the traffic is essentially transfer and terminal business. The location and characteristics of highways of commerce are bound to differ in different states or areas, and each such state or area produces varying kinds and degrees of hazard. It has long been recognized that the control and regulation of such highways, including railroad operations and rights of way, are matters of local concern which the states may regulate in the absence of congressional occupation. *Atlantic C. L. R. Co. v. Georgia*, 234 U. S. 280.

The Effect of the State Law on Interstate Commerce.

The evidence presented followed two principal channels, the first going to the question of the burden imposed on interstate commerce by the Train Limit Law, and the second going to the question of the protection of the safety of the public and the employees resulting from the Train Limit Law.

In relation to the first question the Appellant introduced oral testimony and exhibits showing for the period 1922 to 1939 (1) the improvements in equipment, appliances, tracks and the operating plants as a whole of all Class I railroads, the Pacific Lines of the Southern Pacific, the Southern Pacific Lines in Nevada and the Southern Pacific Lines in Arizona; [Ex's. 2 to 7 incl.; R. 2852 to 2857 incl.; Ex's. 157-8-9; R. 3031-3] (2) the operating and transportation expenses of these roads by years over the period 1922 to 1939; [Ex's. 20, 151, 160, 161; R. 2868, 3027, 3034, 3035] and (3) by comparing the average of these expenses for the four year period 1936-1939 with the average for the four year period 1922-1925, the percentage of improvement 1936-1939 over 1922-1925. In

the Arizona exhibits for the years 1922, 1923 and the first 10 months of 1924 of the first four year period, only the operations on the Southern Pacific before consolidated with the E. P. & S. W. and the Arizona Eastern were included [Ex. 149, R. 3025]. By the consolidation approximately 200 miles of main line trackage and approximately 500 miles of branch line trackage were added to Appellant's lines in Arizona [Ex. 305, R. 3430], the added territory presenting more difficult operating conditions and increasing expenses on the lines in the state as a whole. Comparing 1936-1939 with the first four years following consolidation the percentage of improvement in Arizona compares favorably with that on other railroads.

Evidence was also introduced showing the operating averages on Class I railroads, the Pacific Lines of the Southern Pacific, the Salt Lake Division and the Tucson Division. [Ex's. 22, 162, 163, 164; R. 2870, 3036-3038]. Here again, when the periods used for comparison are since the territory in Arizona was constituted as it is now constituted, the improvement in efficiency in Arizona compares favorably with the other railroads.

Appellant also presented a redispach or assumed operation of the trains actually operated in certain periods in 1938 and 1940, to represent how trains would have been operated had the Train Limit Law not been in effect [Ex. 198, R. 3115]. From this redispach or assumed operation and a comparison of fuel used on the Salt Lake and the Tucson Division the Appellant then presented evidence to show the savings by long train operations in expense, in the number of trains operated, and in interference with and delays to interstate commerce [Ex's. 226, 249, 250; R. 3215, 3258-3262]. The exhibits, in truth, show these savings were all, or substantially all, due to the use of

equipment, such as 4100 class engines, in the redispach or assumed operation, not used in the actual, and by the failure to take into consideration the change during the period in the territory included in the Tucson Division, and the joint-track operation agreement on the Salt Lake Division.

The Facts Respecting Safety.

This evidence fails to show the presence of any substantial burdens upon, or interference with, interstate commerce resulting from the enforcement of the Arizona law. Other facts and aspects of this question will be stated in the course of our argument.

The evidence going to the second question—the protection of the safety of the public and employees resulting from the Train Limit Law shows:

The Train Limit Law protects the public and employees from the hazards of slack action on long trains. The air-brake instruction books of the Appellant and of the Santa Fe recognize the dangers from slack action in train operations and that these dangers increase as the number of cars in a train increase [Ex's. 152, 319, 327, 328; R. 1099, 2289, 3445, 3454]. This is also shown on the exhibits showing casualties on Class I railroads, on Appellant's lines in Nevada, and on Appellant's lines in Arizona. During the 12 year period 1929-1940, 39.6% of the accidents and 45.7% of the casualties, train and train service accidents, in Nevada, were in slack action accidents, and 51.6% of the accidents and 57.5% of the casualties on trains in motion were from slack action. In Arizona during the same period 40% of the accidents and 44% of the casualties on trains in motion were from slack action. All but one of the accidents in Nevada were on long trains.

the one short train having 69 cars. In the two states, 46.6% of these accidents were on long trains and 87% on trains of over 65 cars. [Ex's. 274, 275; R. 3351, 3364].

The severity of the injuries resulting from slack action also increases with the number of cars in a train. In slack action accidents in Nevada during the above 12 years, on long trains two men were permanently injured and 58 were disabled for an aggregate of 2830 days, an average disability of 48.8 days, while on short trains one man was disabled for 20 days. For Arizona and Nevada combined, on long trains 3 men were permanently disabled and 59 were disabled with an average disability of 49.3 days, while on short trains one man was permanently disabled (on a 68 car train) and 60 men were disabled for 1393 days with an average disability of 23.2 days. [Ex's. 274, 275; R. 3351, 3364].

A danger to the public was shown due to slack action in long trains buckling and throwing cars out of the train and onto parallel tracks in front of passenger trains. In the 12 year period 1928-1939 three such accidents resulting in 4 deaths and 42 injured were investigated by the Interstate Commerce Commission. [Ex. 270; R. 3310].

Long trains were shown to create a hazard by reason of the inability to pass signals, or to observe defects in the train while in motion, the increased difficulty in inspecting the train while standing, and the fear and strain on the trainmen which reduces their efficiency.

The Trial Court's Findings and Judgment

After the taking of evidence was closed in the trial court and the case was submitted, the Appellant and the Appellee each filed briefs and presented to the trial court suggested Findings of Fact, Conclusions of Law and a form of Judgment.

ment. The Findings of Fact and Conclusions of Law presented by Appellant were accepted and adopted by the trial Court without a single change therein so far as we are aware. The Findings of Fact cover 147 pages of the printed record herein [R. 3887-4034, inclusive]. At least 90% of the trial court's findings relate to evidentiary, not ultimate, facts. Such ultimate facts as are found are distributed throughout these 147 pages, except for those contained in Findings Nos. XVI to XIX [R. 4032-34] referred to by Appellant as "possibly" being findings to the effect that the State law is invalid. (Appellant's brief, Vol. I, p. 321). As Appellant states in its brief (Vol. I, p. 11), the Appellee presented assignments of error to the State Supreme Court asserting that the trial court had erred in making specified findings of fact, including the greater part of those adopted by the trial court. In reversing the trial court, the Supreme Court in its opinion stated [R. 4067-8]:

"The opinion, condensed as it is in the foregoing pages, expresses our reason for holding that the findings and judgment of the trial court to the effect that the Train Limit Law is unconstitutional were in error."

It is Appellee's position that this holding constituted a reversal and setting aside of the ultimate facts contained in the findings of the trial court upon which its decision in favor of constitutionality was based. In view of the improper content of the great mass of the findings, we believe the Supreme Court's disposition of this matter was proper and sufficient.

However, even if the trial court's findings of fact were not set aside by the Supreme Court's decision, it is clear

that this Court is not bound by them, and will examine the whole record upon the pertinent issues. *South Carolina Hy. Dept. v. Barnwell Bros.*, 303 U. S. 177; *Clark v. Gray*, 306 U. S. 583.

On February 11, 1942, the trial court, adopting the findings, conclusions of law and form of judgment proposed by Appellant, filed its findings of fact, conclusions of law, and judgment [R. 3887-4045]. The judgment adjudged the Train Limit Law invalid on all grounds stated in Appellant's answer. *

The Appeal to the State Supreme Court

On April 9, 1942, the Appellant filed notice of appeal [R. 4054] to the Supreme Court of Arizona from the judgment of the Superior Court dated February 11, 1942.

The appeal was submitted to the State Supreme Court on briefs and oral argument. The decision of the Supreme Court of Arizona, concurred in by two judges (the third Judge dissenting) was announced on December 23, 1943, and reversed the judgment of the Superior Court [R. 4055-4068]. A motion for rehearing duly filed by Appellant on January 7, 1944, was denied by the court on January 13, 1944; on the same date the dissenting opinion [R. 4068-4071] was filed. The court thereupon issued its mandate [R. 4072-4073] dated January 14, 1944, ordering the judgment to be reversed. In obedience to said mandate, the trial court, on February 5, 1944, entered judgment [R. 4073-4074] declaring the law constitutional, and assessing against Appellant a penalty of \$250.00 for each of the two violations alleged in the complaint.

The appeal to this Court is from the above opinion and decision of the Supreme Court of Arizona.

IV.

SUMMARY OF ARGUMENT.

1. The Train Limit Law Does Not Invade an Exclusive National Field of Legislation.

In determining the constitutionality of the Train Limit Law it is necessary for this Court "to ascertain upon the whole record whether it is possible to say" that the law "is without rational basis" in safety, *South Carolina Hy. Dept. v. Barnwell Bros.*, 303 U. S. 177; *Clark v. Paul Gray*, 306 U. S. 583; *New York, N. H. & H. R. Co. v. New York*, 165 U. S. 628; *Smith v. Alabama*, 124 U. S. 465; *Atlantic Coast Line v. Georgia*, 234 U. S. 280; *Minnesota Rate Cases*, 230 U. S. 352. A state statute enacted in the exercise of the state's police power is in the permissible or concurrent field, and not in the exclusive national field, of legislation under the Commerce Clause. *South Carolina Hy. Dept. v. Barnwell Bros.*, 303 U. S. 177; *Clark v. Paul Gray*, 306 U. S. 583; *Minnesota Rate Cases*, 230 U. S. 352; *Gibbons v. Ogden*, 9 Wheat 1; *Missouri K. T. & R. v. Haber*, 169 U. S. 613; *New York, N. H. & H. R. Co. v. New York*, 165 U. S. 628; *Smith v. Alabama*, 124 U. S. 465; *Nashville etc. R. Co. v. Alabama*, 128 U. S. 96; *Atlantic C. L. R. Co. v. Georgia*, 234 U. S. 280; *Terminal R. Assn. v. Brotherhood of R. Trainmen*, 318 U. S. 1.

The determination as to whether the burden imposed on interstate commerce by a state statute enacted in the exercise of the state's police power is too great in relation to

the national interest in interstate commerce is a legislative, and not a judicial, function. *South Carolina Hy. Dept. v. Barnwell Bros.*, 303 U. S. 177; *Clark v. Paul Gray*, 306 U. S. 583; *Minnesota Rate Cases*, 230 U. S. 352; *Gibbons v. Ogden*, 9 Wheat 1; *Missouri K. T. & R. v. Haber*, 169 U. S. 613; *New York, N. H. & H. R. Co. v. New York*, 165 U. S. 628; *Smith v. Alabama*, 124 U. S. 465; *Nashville etc. R. Co. v. Alabama*, 128 U. S. 96; *Atlantic C. L. R. Co. v. Georgia*, 234 U. S. 280; *Terminal R. Assn. v. Brotherhood of R. Trainmen*, 318 U. S. 1.

Protection of the public and of employees against those hazards which are related to the length of a train is a matter of local concern. *Bradley v. Ohio*, 289 U. S. 92; *Nashville etc. R. Co. v. Alabama*, 128 U. S. 96; *Smith v. Alabama*, 124 U. S. 465; *Atlantic C. L. R. Co. v. Georgia*, 234 U. S. 280.

No sufficient reason appears why the regulation of train lengths should be limited to national regulation.

2. Extra-territorial Effect and Burden on Interstate Commerce are one and the same thing.

The extra-territorial effect on interstate commerce is but one phase of the burden on interstate commerce which may result from state police power regulations. Where a state police measure affects interstate commerce, such effect must in every case, to some extent at least, be extra-territorial. The determination as to whether the burden imposed on interstate commerce by such a state statute is too great is, nevertheless, a legislative, and not a judicial,

function. *Terminal R. Assn. v. Brotherhood of R. Trainmen*, 318 U. S. 1; *New York, N. H. & H. R. Co. v. New York*, 165 U. S. 628; *Atlantic Coast Line v. Georgia*, 234 U. S. 280; *Chicago, R. I. & P. R. Co. v. Arkansas*, 219 U. S. 453; *Missouri P. R. Co. v. Norwood*, 283 U. S. 249; *South Carolina Hy. Dept. v. Barnwell Bros.*, 303 U. S. 177; *Mauer v. Hamilton*, 309 U. S. 598; *Sproles v. Binford*, 286 U. S. 284.

The extra-territorial effect of the Arizona Law does not render the law unconstitutional.

3. The Train Limit Law Does Not Invade a Field Already Occupied by Congress by Sections 1 and 9 of the Safety Appliance Act or by Section 25, Part I of the Interstate Commerce Act.

The fields occupied by the Federal Statutes (sections 1 and 9 of the Safety Appliance Act and section 25, Part I of the Interstate Commerce Act) are different from that occupied by the Train Limit Law.

Sections 1 and 9 of the Safety Appliance Act and section 25, Part I of the Interstate Commerce Act deal only with the mechanical appliances to be used in railroad operations, and in no way enter the field of regulating the length of trains. *Johnson v. Southern Pacific Company*, 196 U. S. 1; *United States v. California*, 297 U. S. 175; *Napier v. Atlantic Coast Lines*, 272 U. S. 605; *Missouri Pac. R. Co. v. Norwood*, 283 U. S. 249; *Power Brake Investigation Case*, 91 F. C. C. 481.

The Train Limit Law deals only with the number of cars which may be operated in a train and in no way enters the field of regulating the mechanical appliances which may be used in railroad operations. No intention can be attributed to Congress in enacting the Federal statutes to occupy the field of regulating train lengths. *Savage v. Jones*, 225 U. S. 501; *Kelly v. Washington*, 302 U. S. 1; *Atlantic Coast Line R. Co. v. Georgia*, 234 U. S. 280; *Peoria Ry. Co. v. United States*, 263 U. S. 528; *International R. Co. v. Railroad Comm. of Texas*, 281 S. W. 1084 (aff. 275 U. S. 503); *Terminal R. Assn. v. Brotherhood of R. Trainmen*, 318 U. S. 1.

There is no conflict between the Federal statutes and the Arizona Law. *Parker v. Brown*, 317 U. S. 341, 359; *Cloverleaf Butter Co. v. Patterson*, 315 U. S. 148; *Missouri etc. Co. v. Haber*, 169 U. S. 613; *Kelly v. Washington*, 302 U. S. 1; *New York C. R. Co. v. United States*, 265 U. S. 41; *United States v. Grand Rapids & I. Ry. v. United States*, 244 Fed. 609.

4. **The Determination of the Validity of the Train Limit Law Rests Solely Upon the Determination of Whether Upon the Whole Record it is Possible to Say That the Law is Without Rational Basis in Safety. The Train Limit Law Has a Rational Basis in Safety.**

The extent of the burden, if any, imposed on interstate commerce may not be considered by the Court in determining the reasonableness of a state law enacted in the exercise of the police power. Under the Commerce Clause the determination as to whether the burden imposed upon interstate commerce by a state police statute is too great is always a legislative function (see cases cited under I. above). Under the Fourteenth Amendment it becomes a matter of judicial determination only when a method of regulation is shown which will accomplish the identical object or purpose of the law in question at less cost. *Erie R. R. Co. v. Board of Comm.*, 254 U. S. 294; *Lehigh Valley R. Co. v. Board of Comm.*, 278 U. S. 24; *South Carolina Hy. Dept. v. Barnwell Bros.*, *supra*; *Nashville, C. & St. L. R. Co. v. White*, 276 U. S. 456; *Missouri P. R. Co. v. Omaha*, 235 U. S. 131; *Chicago & A. R. Co. v. Tranbarger*, 238 U. S. 67.

Under both the Commerce Clause and the Fourteenth Amendment the judicial function stops with inquiry whether the state has acted within its province, and whether the means of regulation chosen are reasonably adapted to the ends sought. *South Carolina Hy. Dept. v. Barnwell Bros.*, *supra*. Here the first inquiry has been resolved in favor of the state regulation by decisions of this Court. *Smith v. Alabama*, 124 U. S. 465; *Nashville C. & St. L. R. Co. v. Alabama*, 128 U. S. 96; *New York, N. H. & H. R. Co. v. New York*, 165 U. S. 628; *Atlantic*

C. L. R. Co. v. Georgia, 234 U. S. 280; *Chicago, R. I & P. R. Co. v. Arkansas*, 219 U. S. 453; *Terminal R. Assn. v. Brotherhood of R. Trainmen*, 318 U. S. 1. In resolving the second inquiry the Court looks to the record, not to see whether the findings below are supported by the evidence, but to ascertain from the whole record whether it is possible to say that the legislative choice is without rational basis. *South Carolina Hy. Dept. v. Barnwell Bros.*, *supra*; *Clark v. Paul Gray*, 306 U. S. 583; *Eric R. R. Co. v. Williams*, 233 U. S. 685; *Stephenson v. Binford*, 287 U. S. 251; *Nashville etc. Co. v. White*, 278 U. S. 456. The Train Limit Law has a rational basis in the protection of the public and employees from accidents and injuries due to the increase in the number of cars in a train, and is valid.

5. The Decision of the State Supreme Court, in Reversing the Trial Court, Did Not Deny to Appellant Any Federal Right to Which, on the Evidence, Appellant Is Entitled.

Findings of fact should find only ultimate facts. *Wilson v. Merchants' L. & T. Co.*, 113 U. S. 124. The decision and opinion of the State Supreme Court reversing the trial court is a reversal of the trial court's finding upon the ultimate fact (it is impossible to say that the law has no rational basis in safety). The ultimate fact to be determined is so interwoven with the question of law as to be in substance a decision of the latter.

The state rules and decisions upon the effects to be given to findings have no application in a case arising under the Constitution of the United States. *Truax v. Corrigan*, 237 U. S. 312, 324; *Norfolk & W. R. Co. v. Conley*, 236 U. S. 605, 609.

ARGUMENT.

1. **The Train Limit Law Does Not Invade an Exclusive National Field of Legislation** [Reply to Assignment of Error No. 1].

The Appellant's position upon this proposition is stated in its brief (Vol. I, pp. 82-83) as follows:

"We emphasize that, in considering this point, it is unnecessary for this Court to take into account whether the challenged law is really, or merely ostensibly, a safety statute; or whether it is unreasonable, arbitrary or otherwise in violation of the Due-Process Clause of the XIV Amendment. It is likewise unnecessary to consider whether the law imposes financial burdens upon, or interferes physically with, interstate commerce. The mere fact of entry into a forbidden field, reserved to the federal power, where national regulation is indispensable if any is to be attempted, is sufficient to invalidate the action of the State, irrespective of the actual effects upon interstate commerce."

This contention assumes that the state law—here the Train Limit Law—has a real relation to the safety and the protection of the life and limbs of those people who are within the borders of the state and is in a field not occupied by Congress. It further assumes that the right of a state to exercise the police power reserved to it under the Constitution where it affects interstate commerce, but in a field not occupied by the federal government, is made to depend upon a *judicial* determination as to whether or not the subject of the state legislation is of such a nature that, if regulated at all, it should be by national and not by state legislation—a matter of policy and for Congress, the legislative branch of government. And in making this

judicial determination the Court, under Appellant's contention, is prohibited from any consideration as to whether or not the state statute has for its purpose the safety and protection of the lives of its people. The validity of state legislation, *admittedly* having for its purpose the protection of the life, health and safety of its inhabitants, and otherwise valid as an exercise of the police power reserved to the states, is, by Appellant's contention, made subject to the opinion of the Court as to whether such protection should be by Federal or state legislation.

This is not the law, and is, we believe, contrary to a long line of decisions of this Court.

We recognize that a state may not, under the guise of the police power or otherwise, *directly* regulate interstate commerce. But this does not prohibit the enactment of legislation by a state under its police power although such legislation indirectly affects interstate commerce. A statute having a real relation to the safety and protection of the people of the state, and otherwise valid under the police power of the state, is not invalid because it indirectly burdens interstate commerce, the Federal government not having occupied the field. In this we are supported by a long line of decisions of this Court.

In the state court, as here, the Appellant quoted at length from, and placed great reliance on, the decision of this Court in the *Minnesota Rate Cases*, 230 U. S. 352. We will consider this case first.

In its quotation from the decision in the *Minnesota Rate Cases* in its brief herein (Vol. I, p. 98) the Appellant placed particular emphasis upon the following statement therein:

"The grant in the Constitution of its own force, that is, without action by Congress, established the

essential immunity of interstate commercial intercourse from the *direct* control of the states with respect to those subjects embraced within the grant which are of such a nature as to demand that, if regulated at all, their regulation should be prescribed by a single authority. It has repeatedly been declared by this court that as to those subjects which require a general system or uniformity of regulation, the power of Congress is exclusive. In other matters, admitting of diversity of treatment according to the special requirements of local conditions, the states may act within their respective jurisdictions until Congress sees fit to act; and, when Congress does act, the exercise of its authority overrides all conflicting state legislation." (Citing cases.) (Emphasis ours.)

This statement in the *Minnesota Rate Cases* does not in truth support the Appellant's contention. By this statement the Court limits the class of legislation which is within the "exclusive field" to that which *directly* controls interstate commerce. That this is true is clearly shown by the statement which immediately follows that quoted above:

"The principle which determines this classification underlies the doctrine that the states cannot, under any guise, impose direct burdens upon interstate commerce. For this is but to hold that the states are not permitted *directly* to regulate or restrain that which, from its nature, should be under the control of a one authority, and be free from restriction, save as it is governed in the manner that the national legislature constitutionally ordains." (Emphasis ours.)

The following examples are then given by the Court of legislation prohibited to the states (that is, within the exclusive power of Congress):

The states cannot: tax interstate commerce; "prohibit interstate trade in legitimate articles of commerce"; "discriminate against the products of other states"; "exclude from the limits of the state corporations or others engaged in interstate commerce," or "fetter by conditions this right to carry it on"; "prescribe rates to be charged for transportation from one state to another"; or "subject the operations of carriers in the course of such transportation to requirements that are unreasonable or pass beyond the bounds of suitable local protection."

Each example given by the Court is one of *direct* regulation. . . And the last example, statutes regulating the operations of carriers in interstate transportation, places in the "exclusive field" only such of those statutes "as are unreasonable or pass beyond the bounds of suitable local protection." It follows that those statutes of this character that are reasonable and within the bounds of suitable local protection are not in the exclusive but in the permissible field. And such is the holding of the Court in that part of the opinion immediately following (230 U. S. at 402):

"But within these limitations there necessarily remains to the states until Congress acts, a wide range for permissible exercise of power appropriate to their territorial jurisdiction although interstate commerce may be affected. It extends to those matters of a local nature as to which it is impossible to derive from the constitutional grant an intention that they should go uncontrolled pending Federal intervention."

The Court then pointed out that there are subjects which, since the foundation of government, the states have regulated, because of the necessity that they should not remain unregulated, until Congress supersedes (230 U. S. 402):

"Further, it is competent for a state to govern its internal commerce, to provide local improvements, to create and regulate local facilities, *to adopt protective measures of a reasonable character in the interest of the health, safety, morals and welfare of its people, although interstate commerce may incidentally or indirectly be involved.* * * * In such case, Congress must be the judge of the necessity of Federal action. Its paramount authority always enables it to intervene at its discretion for the complete and effective government of that which has been committed to its care, and, for this purpose and to this extent, in response to a conviction of national need, to displace local laws by substituting laws of its own. The successful working of our constitutional system has thus been made possible." (Emphasis ours.)

Illustrations given of the exercise of the powers by the state within this permissible field are: the enactment of pilotage laws; the improvement of harbors, bays and streams, and the construction of dams and bridges across navigable streams; quarantine regulations; state inspection laws; statutes for the protection of game and the food supply; statutes providing for misfeasance, nonfeasance, injuries and death received by employees in interstate commerce; statutes creating and enforcing liens against property used in interstate commerce; and "legislation of the states, safeguarding life and property and promoting comfort and convenience within its jurisdiction, may extend incidentally to the operations of the carrier in the conduct

of interstate business, provided it does not subject that business to unreasonable demands, and is not opposed to Federal legislation." Many cases are cited by the Court in support of these propositions.

This Court has consistently held that state legislation enacted under the police power reserved to the states and in a field not occupied by Congress comes within the permissible field under the commerce clause, and, if otherwise valid, it is valid under the commerce clause until superseded by legislation enacted by Congress under its paramount power.

Applying the language of the *Minnesota Rate Cases*, is there any "exercise of power" more "appropriate to the territorial jurisdiction" of a state than the exercise of the power to protect the lives, limbs, health and property of those within its territorial limits—the exercise of its police power? If there are any powers "as to which it is impossible to derive from the constitutional grant an intention that they should go uncontrolled pending Federal intervention," isn't the power to protect the lives, limbs, health and property of its inhabitants one of such powers? If there are certain subjects which, irrespective of their obvious and direct relation to interstate commerce, nevertheless, with the acquiescence of Congress, have been controlled by state legislation "because of the necessity that they should not remain unregulated," isn't the protection of the life, limb, health and property of the state's inhabitants one of such subjects?

"It is competent for a state * * * to adopt protective measures of a reasonable character in the interest of the health, safety, morale and welfare of its people, although interstate commerce may incidentally or indirectly be involved."

This principle of law is stated by Mr. Justice Johnson in *Gibbons v. Ogden*, 9 Wheat. 1, 235, and quoted with approval in *Missouri K. & T. R. Co. v. Haber*, 169 U. S. 613, 627, as follows:

"The same bale of goods, the same cask of provisions, or the same ship, that may be the subject of commercial regulation, may also be the vehicle of disease, and the health laws that require them to be stopped and ventilated are no more intended as regulations on commerce than the laws which permit their importation are intended to inoculate the community with disease. Their different purposes marks the distinction between the powers brought into action, and while frankly exercised, they can produce no serious collision."

It has been repeatedly held by this Court that the protection of life, health, safety and property is a local problem and primarily the function of the states.

"Protection against accidents, as against crime, presents ordinarily a local problem. Regulation to insure safety is an exercise of the police power. It is primarily a state function, whether the *locus* be private property or the public highways. Congress has not dealt with the subject. Hence, even where the motor cars are used exclusively in interstate commerce, a state may freely exact registration of the vehicle and an operator's license. * * *

Bradley v. Ohio, 289 U. S. 92, at 95.

"It is conceded that the power of Congress to regulate interstate commerce is plenary; that as incident to it, Congress may legislate as to the qualifications, duties, and liabilities of employes and others on railway trains engaged in that commerce; and that such

legislation will supersede any state action on the subject. But until such legislation is had, it is clearly within the competency of the states to provide against accidents on trains whilst within their limits. Indeed, it is a principle fully recognized by decisions of State and Federal Courts, that wherever there is any business in which, either from the products created or the instrumentalities used, there is danger to life or property, it is not only within the power of the states, but it is among their plain duties, to make provision against accidents likely to follow in such business, so that the dangers attending it may be guarded against so far as is practicable." (Emphasis ours.)

Nashville &c. R. Co. v. Alabama, 128 U. S. 96, 99, 100.

"The rules prescribed for their (railroads), construction and for their management and operation, designed to protect persons and property otherwise endangered by their use, are strictly within the limits of the local law." (Emphasis ours.)

Smith v. Alabama, 124 U. S. 465, 482.

Quoted with approval in *Atlantic C. L. R. Co. v. Georgia*, 234 U. S. 280, 292.

"In each of these cases regulation involves a burden on interstate commerce. But so long as the state action does not discriminate, the burden is one which the Constitution permits because it is an inseparable incident of the exercise of a legislative authority, which under the Constitution has been left to the states." (Emphasis ours.)

South Carolina Hy. Dept. v. Barnwell Bros., 303 U. S. 177, 189.

The cases of *Buck v. Kykendall*, 267 U. S. 307, and *Bush v. Malloy*, 267 U. S. 317, are cited by Appellant (Brief, Vol. 1, pp. 95-6) as supporting Appellant's contention. In truth, the statutes involved in those cases had no purpose in safety, presented no question as to the exercise of the police power of the states, but were examples of attempted *direct* regulation of interstate commerce by the state. This was expressly pointed out by this Court in *Bradley v. Ohio*, *supra* (289 U. S. at 95):

"In those cases safety was doubtless promoted when the certificate was denied, because intensification of traffic was thereby prevented. * * * But there promotion of safety was merely an incident of the denial. Its purpose was to prevent competition deemed undesirable. The test employed was the adequacy of existing transportation facilities; and since the transportation in question was interstate, denial of the certificate invaded the province of Congress. In the case at bar, the purpose of the denial was to promote safety; and the test employed was congestion of the highway. The effect of the denial upon interstate commerce was merely an incident." (Emphasis ours.)

The Appellee's contention has been sustained by this Court in a number of decisions sustaining the constitutionality of state laws affecting railroad transportation enacted in the exercise of the state's police power.

In *New York, N. H. & H. R. Co. v. New York*, 165 U. S. 628, the constitutionality of a New York statute regulating the heating of passenger cars operated within the state was in question in so far as it applied to inter-

state operations. In sustaining the constitutionality of the statute this Court said (165 U. S. at 631) :

"While the laws of the state must yield to acts of congress passed in execution of the powers conferred upon it by the Constitution * * *, the mere grant to Congress of the power to regulate commerce with foreign nations and among the states *did not, of itself and without legislation by Congress,* impair the authority of the states to establish such reasonable regulations as were appropriate for the protection of the health, the lives, and the safety of their people." (Emphasis ours.)

This Court there stated the law to be exactly as we here contend. And in *Nashville etc. R. Co. v. Alabama*, 128 U. S. 96, 99, 100, this Court said:

"It is conceded that the power of Congress to regulate interstate commerce is plenary; that as incident to it, Congress may legislate as to the qualifications, duties and liabilities of employees and others on railway trains engaged in that commerce; and that such legislation will supersede any state action on the subject. *But until such legislation is had, it is clearly within the competency of the states to provide against accidents on trains whilst within their limits. Indeed, it is a principle fully recognized by decisions of State and Federal Courts, that wherever there is any business in which, either from the products created or the instrumentalities used, there is danger to life or property, it is not only within the power of the States, but it is among their plain duties to make provision against accidents likely to follow in such business, so that the danger attending it may be guarded against so far as is practicable.*" (Emphasis ours.)

And see:

Hennington v. Georgia, 163 U. S. 299;

Chicago, R. I. & P. R. Co. v. Arkansas, 219 U. S. 453;

St. Louis, I. M. & S. R. Co. v. Arkansas, 240 U. S. 518;

Missouri P. R. Co. v. Norwood, 283 U. S. 249;

Missouri, K. & T. R. Co. v. Haber, 169 U. S. 613;

Smith v. Alabama, 124 U. S. 465;

Atlantic C. L. R. Co. v. Georgia, 234 U. S. 280;

Terminal R. Ass'n v. Bro. of R. Trainmen, 318 U. S. 1/

As this Court in these and many other cases has recognized, this right on the part of the states, in a field not occupied by Congress, to protect the life, health and safety of its people, is in no way inconsistent with the purpose of the commerce clause to place in Congress the supreme control over interstate commerce and to prevent the states from creating barriers to interstate commerce, since the paramount authority of Congress "always enables it to intervene at its discretion." (*Minnesota Rate Cases*, *supra*.) On the contrary, it is in keeping with the purpose of the commerce clause to give to Congress the supreme control over interstate commerce, and to place in Congress, and not the court, the power and authority to "determine whether the burdens imposed on it (interstate commerce) by state regulation, otherwise permissible, are too great" ~~and~~ by legislation curtail the state's regulatory power, and this whether these burdens arise by reason of the lack of uniformity of regulation; that is, the lack of a national system of regulation.

"Congress, in the exercise of its plenary power to regulate interstate commerce, may determine whether the burdens imposed on it by state regulation, otherwise permissible, are too great, and may, by legislation designed to secure uniformity or in other respects to protect the national interest in the commerce, curtail to some extent the state's regulatory power. But that is a legislative, not a judicial, function, to be performed in the light of the congressional judgment of what is appropriate regulation of interstate commerce, *and the extent to which, in that field, state power and local interests should be required to yield to the national authority and interest.* * * * In resolving the second, *court do not sit as Legislatures, either state or national. They cannot act as Congress does when, after weighing all the conflicting interests, state and national, it determines when and how much the state regulatory power shall yield to the larger interests of a national commerce.*" (Emphasis ours.)

South Carolina Hy. Dept. v. Barnwell Bros., 303 U. S. 177, 190.

"But these considerations are for the practical judgment of Congress in determining the extent of the regulation necessary under existing conditions of transportation to conserve and promote the interest of interstate commerce. * * * It is the function of this court to interpret and apply the law already enacted, but not, under the guise of construction, to provide a *more comprehensive scheme of regulation than Congress has decided upon.* Nor, in the absence of Federal action, may we deny effect of the laws of the state enacted within the field which it is entitled to occupy until its authority is limited through the exertion by Congress of its paramount constitutional power." (Emphasis ours.)

Minnesota Rate Cases, 230 U. S. at 432.

This proposition—that the commerce clause has placed in Congress the power and authority to determine whether the burdens imposed on interstate commerce by state regulation, otherwise permissible are too great—does not, as Appellant argues (App. Br., Vol. I, p. 115), lose sight of realities. No real problem is presented as to how Congress may enter the field and thus exclude the states. It is neither necessary, as Appellant suggests, that Congress pass a resolution declaring no regulation is necessary nor that Congress pass affirmative legislation fixing a limit on the number of cars that may be operated in a train.

A few examples will illustrate how Congress has performed this function. Congress excluded the states from the field of quarantine regulations affecting interstate commerce by delegating to the Secretary of Agriculture the power to determine when quarantines were necessary and to declare such quarantines. But until Congress thus occupied the field the validity of state regulations was uniformly sustained notwithstanding the burdens imposed upon interstate commerce.

Oregon-Washington R. & N. Co. v. Washington
270 U. S. 87.

The Boiler Inspection Act delegates to the Interstate Commerce Commission authority to prescribe the use of safety equipment upon locomotive and all parts and appurtenances thereof. This statute constitutes an occupation of the entire field of such equipment whether or not the Commission has acted respecting a given device, and the states are ousted from regulating such devices. *Napier v. Atlantic Coast Line*, 272 U. S. 605, 613. But prior to the time when the Commission was given jurisdiction over

locomotive appurtenances, state regulations requiring such appurtenances were sustained, notwithstanding they may have burdened interstate commerce. *Atlantic Coast Line R. Co. v. Georgia*, 234 U. S. 280.

The protection of the safety and health of those within the boundaries of a state is always a matter of *local concern*, and a proper subject for the exercise of the state's police power. When regulatory measures affect interstate commerce, it becomes a question of policy for Congress, the legislative body entrusted by the Commerce Clause with the paramount power over such commerce, to determine whether the regulation shall be local or national.

To exclude the state and state regulation here Congress need only delegate to the Interstate Commerce Commission (or some other appropriate Federal department) the exclusive power and authority to investigate the number of cars which may be operated in a train with safety, and, when such investigation shows a limitation to be necessary and proper in the interest of safety, to fix a limit on the number of cars to be operated in a train. It then becomes a subject of exclusive national regulation, and there will be no limitation unless the Interstate Commerce Commission after investigation should find it necessary. The state regulation becomes void and of no effect but a Federal agency has been provided with experience in the field and with authority to investigate and control the matter where control is found necessary. This, we believe, is the intent of the Commerce Clause. As stated in the *Minnesota Rate Cases*, *supra*, the Constitution never intended that matters of a local nature (and certainly the protection of citizens of a state is a matter of local concern) should go uncontrolled pending Federal intervention.

California v. Thompson, 313 U. S. 109, and *Parker v. Brown*, 317 U. S. 341, cited by the Appellant, are in accord with this contention or proposition. The determination of the question as to whether or not the subject of regulation is one which if regulated at all it should be by national legislation and not by state, the "balancing of local and national interest", in final analysis is in every instance based upon the extent of the burden imposed on commerce by the state regulation. Of necessity in determining that the regulation should be by national authority, the question reduces to the effect of local regulation on national commerce. That is, is the burden imposed by the state regulation too great? The argument of the Appellant and of the Solicitor General herein reduces down to the proposition that the constitutionality under the Commerce Clause of a state statute, *admittedly a police regulation*, is to be determined by a consideration of the extent of the burden imposed on interstate commerce by the state statute, by "balancing the local and national interest"—in other words, by determining whether in the light of the national interest the burden imposed upon interstate commerce is too great—and that such is the holding of this Court in *California v. Thompson*, *supra*, and in *Parker v. Brown*, *supra*. The Appellee contends that whether the burden on interstate commerce by reason of the statute *is too great* is a legislative, and not a judicial, question, and that *California v. Thompson* and *Parker v. Brown*, are in accord with Appellee's contention.

In *California v. Thompson*, the Court cited with approval, among others, *South Carolina Hy. Dept. v. Barnwell Bros.*, 303 U. S. 177, 185-191; *Smith v. Alabama*, 124 U. S. 465; *Nashville C. & St. L. R. Co. v. Alabama*,

128 U. S. 96; *Chicago, R. I. & P. R. Co. v. Arkansas*, 219 U. S. 453; *Missouri Pac. R. Co. v. Norwood*, 283 U. S. 249; *New York, N. H. & H. R. Co. v. New York*, 165 U. S. 628, and the *Minnesota Rate Cases*, 230 U. S. 352, 398-412. *Parker v. Brown*, *supra*, cited with approval, among others, *South Carolina Hy. Dept. v. Barnwell Bros.*, *supra*; *California v. Thompson*, *supra*, and *Minnesota Rate Cases*, *supra*.

As we have heretofore pointed out, the Court in those cited cases, and in conformity with a long line of cases, has held that the Constitution placed in Congress the power and authority to "determine whether the burdens imposed on it (interstate commerce) by state regulation * * * are too great." (Emphasis ours.) *South Carolina Hy. Dept. v. Barnwell Bros.*, *supra*:

"But that is a legislative, not a judicial, function, to be performed in the light of Congressional judgment of what is appropriate regulation of interstate commerce, and the extent to which, in that field, state power and local interest should be required to yield to the national authority and interest. * * * In resolving the second, courts do not sit as Legislatures, either state or national. They cannot act as Congress does when, after weighing all the conflicting interests, state and national, it determines when and how much the state regulatory power shall yield to the larger interests of a national commerce."

South Carolina Hy. Dept. v. Barnwell Bros., *supra*.

In effect the Appellant argues that this Court, by its decisions in *California v. Thompson* and *Parker v. Brown*, has transferred or taken to itself the power and authority which in the *Barnwell* and other cases it held was

legislative, and by the Constitution placed in Congress. We do not so read the *Thompson* and *Parker* decisions. We understand these cases to hold, in accordance with the *Barnwell* and other cases cited, that where a statute has a rational basis in safety the extent of the burden it imposes on interstate commerce—whether it is too great in relation to the national interest—is a legislative question.

As we have said, the national interest in interstate commerce is not, as Appellant seems to infer, left unprotected by this construction or interpretation. The simple remedy lies with Congress which "in the exercise of its plenary power to regulate interstate commerce, may determine * * * what is appropriate regulation of interstate commerce, and the extent to which, in that field, state power and local interests should be required to yield to national authority and interest." (Emphasis ours.) *South Carolina Hy. Dept. v. Barnwell Bros.*, 303 U. S. 177, 189-190. To exclude the state legislation Congress need only authorize the Interstate Commerce Commission to investigate, and where found necessary fix the number of cars to be operated in a train. The state law becomes invalid but in its place a Federal Agency is provided with authority to investigate and, if and when found necessary, fix a limit on the number of cars to be operated in a train. If no limit is necessary, none will be fixed.

* * * there is a simple remedy; and it cannot be assumed that it will not be readily applied if there be real occasion for it. That remedy does not rest in a denial to the state, in the absence of conflicting Federal action, of its power to protect life and property within its borders, but it does lie in the exercise of the paramount authority of Congress in its control of interstate commerce, to establish such

regulations as in its judgment, may be deemed appropriate and sufficient. Congress, when it pleases, may give the rule and make the standard to be observed on the interstate highway."

Atlantic C. L. R. Co. v. Georgia, 234 U. S. 280, 292;

Oregon-Washington R. & N. Co. v. Washington, 270 U. S. 87;

Napier v. Atlantic C. L. R. Co., 272 U. S. 605, 607.

Kansas Southern Ry. v. Kaw Valley District, 233 U. S. 75, and *Seaboard Air Line Ry. v. Blackwell*, 244 U. S. 310, do not support the Appellant's contention. In the *Kansas Southern Ry.* case, purporting to act under a state statute, the drainage district ordered the railroad to raise to a specified height its bridges across the Kansas river, a navigable stream. The State Supreme Court, recognizing that the bridges could not be raised without the consent of the Secretary of War, and seeking to do indirectly what could not be done directly, ordered the railroad to clear the channel to the specified height. This would have required the removal of the bridges and would have prohibited and entirely destroyed interstate commerce. It was "not pretended that local welfare needs the removal of the defendant's bridges at the expense of the dominant requirements of commerce with other states, but merely that it would be helped by raising them." 233 U. S. at 79. The state statute was not in fact a police measure.

In *Seaboard Air Line Ry. v. Blackwell*, the state statute which required trains approaching crossings to reduce speed so as to be able to stop if necessary to avoid an accident was held invalid, not by balancing local and national interest, but because to indiscriminately require

trains to slow up at *all* crossings, whether or not the crossing presented a hazard greater than the ordinary crossing hazard, "would be practically destructive of the successful operation of interstate passenger trains" and therefore "might not only be a direct burden on interstate commerce." 244 U. S. at 315. There is a clear distinction between a police measure which as an incidental effect *regulates* interstate commerce, and a measure the effect of which is to *prohibit* or *destroy* interstate commerce. The latter *directly* regulates interstate commerce. *Seaboard Air Line Ry. v. Blackwell, supra*, is such a case. And see: *Hannibal & St. J. R. Co. v. Husen*, 95 U. S. 465; *Schollenberger v. Pennsylvania*, 171 U. S. 1; *West v. Kansas Natural Gas Co.*, 221 U. S. 229.

Nor do the numerous other cases cited by Appellant and by the Solicitor General support the Appellant's contention on this proposition. Upon examination it will be found that the basis of the decision upon the validity of the state statute involved was either that *the field was already occupied* by Congress, or that *the state statute was direct regulation and not a police measure*.

Oregon-Washington R. & N. Co. v. Washington, 270 U. S. 87, is typical of the first class of decisions. In that case, this Court held the state quarantine statute invalid, not because it invaded the "exclusive" national field, but because Congress, by giving to the Secretary of Agriculture the power to establish quarantines whenever and wherever he found necessary, had occupied the field of quarantines (see 270 U. S. at 99).

Lempke v. Farmers' Grain Co., 258 U. S. 50, is typical of the second class of decisions. In the *Lempke* case the state statute was adjudged invalid because this Court held

that, in providing a system which enabled state officials to fix the profits which could be made in dealing with subjects in interstate commerce, the statute directly regulated interstate commerce; and that the police provisions of the state were so "essential and vital" to the general plan of the statute that the statute was inseparable and invalid *in toto*. (258 U. S. at 59, 60.)

The whole argument of Appellant that the Train Limit Law invades the "exclusive national" field is that the burden imposed on interstate commerce by the law is *too great* to permit of local regulation—a legislative question. No other argument is made by Appellant and there is no evidence in the record to support the contention that the subject matter of the Train Limit Law is one of national, and not local, concern. The record in fact refutes the Appellant's contention that the subject is of national and not of local concern. The safety of long train operation depends to considerable extent on local conditions, curves, grades, hogbacks, dips, sand storms and the like. It is improbable that the same limit would be made for *flat*, comparatively curveless trackage such as in Kansas, as would be applied where there are hogbacks, dips, curves and grades. Nor is it probable that a limit for Kansas or Arizona would be applicable to terminal operations such as in the Chicago territory.

If the Interstate Commerce Commission had the power and authority to fix train lengths, it would of necessity investigate local conditions. Its determination of the number of cars to be operated in a train would depend to a large extent on local conditions. The accident on the Pennsylvania near Manor, Penn. [Ex. 311, R. 2213], where three were killed and eleven injured when the run-in of slack on a long train, passing through a dip, buckled and threw a

car out of the train in front of a passenger train, was due to a local condition—a dip or sag. The local character of the subject matter under this law is far greater than in the statutes sustained in the *Georgia Headlight* case and in *California v. Thompson, supra*. In the *Georgia Headlight* case, a Federal statute could have taken care of the subject (as it later did) without thought to local conditions. There could be no local condition which would affect the headlight. Likewise, in *California v. Thompson*, a national statute could regulate ticket brokers without consideration of local matters. Federal legislation, however, as to the number of cars in a train would not, in all probability, be uniform throughout the United States but would vary depending on local conditions.

Protection against accidents is a *local* matter or problem. This has been the consistent holding of this Court.

Bradley v. Ohio, 289 U. S. 92, 95;

Smith v. Alabama, 124 U. S. 465, 481, 482;

Atlantic C. L. R. Co. v. Georgia, 234 U. S. 280, 292.

New York, N. H. & H. R. Co. v. New York, 165 U. S. 628, 631.

Protective legislation is in the permissible field under the commerce clause. The burden on interstate commerce involved in such legislation "is one which the Constitution permits because it is the inseparable incident of the exercise of legislative authority, which, under the Constitution, has been left to the states." (303 U. S. at 189.) Congress may determine whether the burdens imposed by the state legislation are too great, and, to protect the national interest in commerce, curtail the state's power. "But that is a legislative not a judicial function," to be

performed, in the light of the Congressional judgment of what is appropriate regulation of interstate commerce, and the extent to which, in that field, state power and local interest should be required to yield to the national authority and interest. * * * courts do not sit as Legislatures, state or national. They cannot act as Congress does when, after weighing all the conflicting interests, state and national, it determines when and how much the state regulatory power shall yield to the larger interests of a national commerce." (303 U. S. at 190.)

* * * there is a simple remedy; and it cannot be assumed that it will not be readily applied if there be real occasion for it. That remedy does not rest in a denial to the state, in the absence of conflicting Federal action, of its power to protect life and property within its borders, but it does lie in the exercise of the paramount authority of Congress in its control of interstate commerce to establish such regulations as in its judgment may be deemed appropriate and sufficient." (234 U. S. at 202.)

We respectfully submit that, as this Court has stated in *New York, N. H. & H. R. Co. v. New York, supra*, (165 U. S. at 631) the mere grant to Congress of the power to regulate interstate commerce "did not of itself and without legislation by Congress, impair the authority of the states to establish such reasonable regulations as were appropriate for the protection of the health, the lives, and the safety of their people" and that the Arizona Train Limit Law cannot be adjudged unconstitutional unless it is determined that this law is not a safety measure, or that it invades a field already occupied by Congress, or that it violates the 14th Amendment to the Constitution of the United States.

Appellant's Burden Evidence.

In our discussion of this proposition we have not discussed the evidence presented by the Appellant for the purpose of showing the extent of the burden imposed on interstate commerce by the Train Limit Law. As our argument discloses, we do not believe that the extent of the burden is a matter to be considered by the Court in determining the constitutionality of the law. This should not be taken to mean, however, that we concede that the law imposes such burdens as Appellant concludes from the evidence or as the trial court found—or that it imposes any substantial burden. We, in fact, deny that the law imposes any substantial burden on interstate commerce. While we will not go into the burden evidence to any great extent, believing that whether the burden is too great is a legislative, and not judicial, question, we will point out a few parts of the evidence to illustrate why we believe the conclusions of the Appellant and of the trial court, with respect to the extent of the burden, are erroneous.

Exhibits were placed in evidence by the Appellant showing the operating and transportation expenses by years 1922 to 1939, inclusive, for (a) all Class I railroads, (b) some 16 railroads, each separately, and (c) separately, Southern Pacific Company, Pacific Lines, Southern Pacific Company, lines in Arizona and S. P. lines in Nevada. The purpose was to show a comparison of trends in the percentage of decrease or improvement in these expenses. From this Appellant argues and the trial court found that the Appellant was unable to achieve the same decrease or percentage of improvement in the territory affected by the Train Limit Law as was achieved in other territory, and this because of the train limit law. The exhibits present no basis for such conclusion.

It is necessary to show one factor only (and there are others) entering into the comparison to show its fallacy. The comparison of percentage of improvement made by Appellant and accepted by the trial court includes the years 1922, 1923 and 1924 in the first four year period. Any comparison with the Southern Pacific Company lines in Arizona which includes the years 1922, 1923 and 1924 is impossible because of the consolidation of the E. P. & S. W. and the Arizona Eastern with the Southern Pacific Company in November, 1924 [Ex. 149, R. 3025.]. The Southern Pacific Lines in Arizona before consolidation consisted of 309.95 miles of main line trackage and 144.93 miles of branch line trackage, or a total of 544.88 miles of trackage, and after consolidation it consisted of 574.81 miles of main line trackage and 647.98 miles of branch line trackage, or a total of 1222.79 miles of trackage. [Ex. 305, R. 3430.] The line before consolidation was an entirely different railroad from that after consolidation and could not be taken as a basis for determining the percentage of improvement on the latter. If there were no other reason, the large amount of branch line added is sufficient to make these expenses in 1922, 1923 and 1924 impossible as a basis for determining the percentage of improvement. By the consolidation 503.05 miles of branch line were added to the 144.93 operated prior. *The higher cost of branch line operations would increase these expenses after the consolidation and distort any percentage of improvement based upon the years 1922, 1923 and 1924.* Yet these three years constitute practically 75% of the first four year period (1922-1925) used by the Appellant and the trial court in determining the percentage of improvement on the present Southern Pacific lines in Arizona.

	% Increase Cars Per Train 1939 over 1924		Operating Expense 1936-9		Transportation Expense		
	1925-8		% Decrease		1925-8	1936-9	% Decrease
Class J	18	7.80	6.42	16.8	3.68	3.18	13.6
N. Y. C.	8	8.38	6.73	19.7	4.01	3.41	14.9
Mo. Pac.	18	7.83	6.43	17.8	3.69	3.04	17.6
Ill. C.	3	9.67	6.08	36.8	3.11	3.14	
Gr. N.	18	6.24	5.22	16.3	3.13	2.64	15.8
N. Pac.	15	7.30	6.83	6.9	3.50	3.30	7.0
Rock Isl.	12	8.65	7.07	18.3	4.27	3.43	19.7
Erie	23	7.55	6.49	14.0	3.72	3.32	10.8
St. L. & S. W.	18	9.80	7.22	26.3	3.79	3.20	15.5
C. & N. W.	20	9.50	8.85	6.9	4.70	4.13	14.2
Penn.	46	8.01	6.07	24.2	3.87	3.12	16.7
U. Pac.	12	7.46	6.07	18.8	3.24	2.99	7.7
D. & M.	49	12.97	9.77	24.7	6.44	5.06	21.4
C. M. & S. P.	10	7.76	6.99	9.9	3.66	3.39	7.3
C. B. & Q.	4	6.77	5.78	14.6	3.19	2.86	10.3
C. & O.	49	4.10	3.16	22.9	1.63	1.29	20.8
Santa Fe		7.91	7.74	2.2	3.38	3.48	
S. P. Pac. Lines	17	8.93	7.15	19.9	4.50	3.95	12.2
S. P. Nev.	44	5.23	4.28	18.1	2.65	2.36	10.9
S. P. Ariz.		7.36	5.97	18.8	3.27	3.00	8.5

On the page opposite this, using the first four years following consolidation (1925-1928) as the first period, we show for the several railroads the percentage of improvement and the percentage of increase in cars per train. We submit that it requires supreme imagination to conclude from the percentages shown that the Train Limit Law has prevented the Appellant in the least iota from achieving the same improvement that has been achieved in territory where there is no train limit law. For example consider:

	% increase in cars	% decrease Trans. expense
S.P. Ariz.	8.7
S.P. Nev.	44	10.9
C.B. & Q.	4	10.3
Erie	23	10.8

The decrease in operating expense was 2.2% greater in Nevada than in Arizona with a 44% increase in cars per train in Nevada and no increase in Arizona. But with a 40% greater increase in cars per train in Nevada than on the C. B. & Q. the decrease in operating expense was only 6% greater. This showing presents no possible basis for holding that the Train Limit Law has prevented the Appellant from achieving the same percentage of improvement achieved in territory where train lengths are not limited. Many factors enter into the improvement in these unit costs. Increased traffic will reduce the unit operating cost [R. 262, 263]. Likewise grade and curve elimination will reduce fuel costs and increase speed. Abandonment of costly branch line operations, as has occurred in many sections of the country where trucks have

taken over short hauls, reduces unit costs. These and other factors other than train lengths have brought about the improvement. It will be noticed that the improvement has been greater on *eastern* roads than on western, probably due to a greater increase in traffic on eastern roads. Arizona will be found to compare very favorably with the other *western* roads.

Road	% improvement oper. expense	% improvement trans. expense
Great Northern	16.3	15.8
Northern Pacific	6.9	7.0
Union Pacific	18.8	7.7
Santa Fe System	2.2
S. P. Arizona	18.8	8.5

Mr. Wright of the New York Central testified in substance that gross ton miles per freight train hour is the yardstick for determining efficiency in operations [R. 262; 263]. For the same western railroads the percentage of increase in gross ton miles per freight train hours, 1939 over 1930 (as to this item, no year earlier than 1930 is shown for Arizona in any exhibit) is:

Railroad	Gross ton mile per freight train hour		% increase
	1930	1939	
Great Northern	28021	35462	26.5
Northern Pacific	24848	32408	30.4
Union Pacific	33267	43006	29.3
Santa Fe System	31115	35471	14.0
S. P. Arizona	35087	45026	28.3

[Exs. 47, 49, 79, 131, 163; R. 2898, 2900, 2931, 2993, 3037.]

The increase in gross ton miles per freight train hours—the yardstick of efficiency—is seen to be comparable to that on other western roads.

The Appellant contends and the trial court found that Appellant would save approximately \$400,000 a year if long trains were operated in Arizona. The contention and finding are based almost entirely, if not entirely, upon the assumed operation or redispach presented by Appellant. Nine hundred sheets covering the different operations during the period were introduced. Exhibit 198 is a typical sheet [R. 3115]. From this it is seen:

4100 type locomotives were used in the assumed operation while *none* of this type locomotive were used in the actual. The tonnages of the trains actually operated were as follows [R. 2225]:

(Tonnage given is in M's or 1000 pounds)

Train	Out of Terminal	Into Terminal
Y310.	6356 M's	6406 M's
Y311	5850 "	5850
CY412	5840 "	5135
C413.	6150 "	6150
C414.	6550 "	6550
CY414	5200 "	5535
C415	6630 "	6630
Y312	6058 "	6058
Y313	6114 "	6114

The tonnage rating of a 4100 type locomotive, Tucson to Lordsburg, is 6220 M's [R. 2226]. In the *assumed operation* a 4100 type locomotive handled train Y312 with

6150 M's from Tucson to Lordsburg without a helper. The tonnage of six of the nine actual trains shown in exhibit 198 was 6150 M's or less, and all six could have been handled by a 4100 type locomotive in actual operations without helpers. They are trains Y311, Y312, Y313, CY412, C413 and CY414. All six used 5000 type engines and all required helpers. Had 4100 type locomotives been used, no helper would have been needed. Thus by merely changing the type of engine used all these helpers used in the actual operations would be eliminated. The other three trains in the actual operations were double headers, using 5000 type locomotives. By using 4100 type locomotives helpers would be required for only a short period. (Berison to Dragoon, 21.4 miles; San Simon to Steins, 14.7 miles. Compare engine ratings, page 15, Tucson Division, time table, exhibit 175 [R. 1284].) The savings as to all nine of the trains was due to the use of 4100 or A.C. type locomotives in the assumed and not in the actual. Eleven helper engines were used in the actual operations. Not over four would have been necessary had the 4100 or A.C. type locomotive been used on the trains.

In addition to the savings in wages of enginemen and the saving on fuel, there would have been savings in repairs and maintenance of the unnecessary helper engines; savings in time due to the heavier engine handling the train with greater speed. Also the larger tender on the 4100 type engine enables it to go farther before taking water and so have few delays. Time would be gained by not having to couple helpers in and out. These things show that the purported cost of compliance of \$400,000 per year is not due to the Train Limit Law but is due to

the change in power, to the use of 4100 or A.C. type engines in the assumed operation and not in the actual.

Again, Appellant's claimed fuel savings (accepted by the trial court in its findings) is based primarily upon Exhibit 249 [R. 3258]. The exhibit purports to show the fuel consumption and percentage of decrease in pounds of fuel per 1000 gross ton miles on the Southern Pacific lines, Tucson Division in Arizona, Salt Lake Division in Nevada, and the Pacific Lines, 1924 to 1939, inclusive. The percentage decrease for the period is shown on page 1 of the exhibit as follows:

Tucson Division .	Pacific Lines	Salt Lake Division
12.62%	22.38%	26.06%

That these percentages are fallacious and without any logical basis whatsoever must immediately appear upon examination of sheet 2 of the exhibit [R. 3259]. From this it will be seen that on the Tucson Division in 1924 the fuel used per 1000 gross ton miles was 101 pounds, while in 1939 it was 108 pounds. Thus the exhibit shows an *increase* over the period, *not* a decrease. The reason for this is that from 1924 to 1930 the Tucson Division covered only the territory between Yuma, Arizona, and Tucson, Arizona. In 1930 the Division was extended east to Lordsburg, New Mexico. Since 1930 the Tucson Division has included the territory from Yuma to Lordsburg [R. 1212]. In 1929 on the Tucson Division the fuel per 1000 gross ton miles was 98 pounds. With the extension of the division to Lordsburg, New Mexico, the fuel per 1000 gross ton miles used on the division became 117 pounds—an increase of 19 pounds per 1000 gross ton miles. One outstanding reason for this is the grades and

curves on the territory between Tucson and Lordsburg, shown on the profile maps [Exs. 309, 310, R. 2210]. Also the branch line operation from Bowie, Arizona, to Globe and Miami, Arizona, which came into the division with the extension to Lordsburg [Ex. 154, R. 3028].

The percentages shown by Appellant on sheet 1 of Exhibit 249 were accomplished by determining the percentage of decrease on each division 1928-1929 over 1924-1925 and 1938-1939 over 1930-1931. These two percentages were *added together* and the total taken as representing the percentage of improvement over the entire period.

• With respect to the Tucson Division the percentages *added* were for *two different and distinct territories*—for the first period the territory Yuma to Tucson and for the second period the territory Yuma to Lordsburg. This could not possibly show the improvement on the *Yuma-Lordsburg* territory for the entire period.

Also, in the first period the percentage on the Salt Lake Division is colored by reason of the joint track agreement entered into August 1, 1924, between the Southern Pacific and the Western Pacific [R. 2155]. By this agreement a considerable mileage of single track operations, with the necessary stopping for meets and passes, were eliminated in Nevada. The effect of this is seen in the decrease in pounds of fuel per gross ton miles in the years 1925 (7 pounds) and 1926 (9 pounds) [R. 3261]. The total decrease 1927-1939, inclusive, was 11 pounds per 1000 gross ton miles as compared to the 16 pounds decrease in the two years 1925 and 1926. During the 12-year period 1927 to 1939 the decrease in pounds per 1000 gross ton miles in no sense corresponded with the increase in cars per train. If anything, the contrary appears. In 1927

the cars per train was 65.8 and the use of fuel was 81 pounds per 1000 gross ton miles [R. 3261]. In 1932 the cars per train had increased to 73.4 but the fuel *had also* increased to 85 pounds per 1000 gross ton miles. In 1934 with 79.7 cars per train the fuel used was 80 pounds per gross ton mile. But in 1937 with 73.8 cars per train, a *decrease* of 5.9 cars per train, the fuel remained at 80 pounds per 1000 gross ton mile. In 1938 and 1939 with cars per train 78.6 and 81.2, respectively, the fuel used was 75 and 73 pounds per 1000 gross ton miles respectively. However, in other exhibits will be found other factors which brought about the decreases in these two years. For example, from Exhibit 164, item 1 [R. 3038], it will be seen that the miles of line operated in freight service on the Salt Lake Division in 1936 was 1230.17 miles, while in 1938 it was 1091.09 and 1939 it was 1078.32—a total reduction of 151.85. Unquestionably this reduction in mileage was by reason of the abandonment of *unprofitable branch line mileage*. The abandonment of such mileage would have a material effect in decreasing pounds of fuel per 1000 gross ton miles.

Also it will be noted that the average tractive power on the Salt Lake Division was increased from 55162 tons in 1936 to 62423 in 1939, an increase of 7261 tons. The use of these heavier locomotives, such as the 4100 or A.C. type, was material aid in the decrease in fuel per 1000 gross ton miles—first by eliminating the necessity of many *helper engines*, and, second, by reason of the larger water capacity of their tender they can run further without the necessity of stopping for water.

We submit that the evidence presented by Appellant presents no logical basis whatsoever for the conclusions

and findings as to savings in fuel as shown on Exhibit 250 [R. 3262]. The percentage of decrease (10%) in fuel in the redispach used in this exhibit, derived from Exhibit 249, is utterly without logical basis.

We have presented these examples of what we believe are erroneous conclusions and findings drawn from the evidence with respect to the purported burden on interstate commerce resulting from the Train Limit Law (and we could give many others) in order, as we have said, that we may not be understood to concede the burdens claimed by the Appellant, or that any substantial burden results from the Train Limit Law. However, as we have argued, we believe the question of the extent of the burden—whether it is too great—is for Congress and not for the Court.

2. Extra-territorial Effect and Burden on Interstate Commerce Are One and the Same Thing. (Reply to Assignment of Error No. 2.)

The Appellant contends that the Arizona Train Limit Law is invalid because its necessary effect is to regulate and control the length and consist of interstate trains extra-territorially, that is, beyond the boundaries of the State of Arizona.

While appearing to present a new and distinct question, the legal question presented under this assignment of error is, in fact, identical with or included in the question presented under Assignment of Error No. 1. To state that a necessary effect of the statute is to regulate extra-territorially is only to contend, by different language, that the statute imposed a *direct* burden on interstate commerce. It would seem that wherever a burden is imposed on interstate commerce it affects that commerce as a whole, and

there is always an extra-territorial effect. But as we have shown by our argument under Assignment of Error No. 1, the burden imposed by a state statute enacted under the police power reserved to the states and in a field not occupied by Congress, if otherwise valid, is valid under the Commerce Clause because "the burden is one which the Constitution permits because it is an inseparable incident of the exercise of a legislative authority which, under the Constitution, has been left to the states." (303 U. S. at p. 190.) (*South Carolina Hy. Dept. v. Barnwell Bros.*, *supra*.) The protection of the national interest in the commerce is in Congress, which may determine whether the burden imposed by a state statute is too great and "by legislation designed to secure uniformity * * * curtail to some extent the state's regulatory power." This Court has in numerous decisions held contrary to Appellant's contention.

State statutes regulating the operation of motor vehicles are typical. In *South Carolina Hy. Dept. v. Barnwell Bros.*, *supra*, a statute prohibiting the use on the highways of South Carolina of motor trucks exceeding 90 inches in width or 20,000 pounds in weight with load, was in question; in *Mauer v. Hamilton*, 309 U. S. 598, a Pennsylvania statute prohibited the operation on the state highway of any vehicle carrying any other vehicle above the cab of the carrier vehicle or over the head of the operator of the carrier vehicle; and in *Sproles v. Binford*, 286 U. S. 274, the state statute limited the net load of trucks operating over the highway. In these and similar cases the same contention as to extra-territorial effect was made as the Appellant presents here. It is probable that the requirements of those laws as to the width, the length, the

weight, the number of trailers, or as to vehicles over the cab of the carrier-vehicle impose a far greater extra-territorial regulation and burden on interstate commerce than the Arizona Train Limit Law because with different laws in various states the carrier is required to have his equipment constructed to meet the *most restrictive* law or change equipment at each state line. But this Court has consistently held that the burden imposed by such statutes is indirect and is incidental to the exercise of the state's police power.

Likewise the same argument has been made in numerous cases before this Court involving the question of the validity of state laws regulating railroad transportation, and the decisions of the Court refute Appellant's argument here. In *New York, N. H. & H. R. Co. v. New York*, *supra*, the statute regulated the method of heating passenger cars; in *Atlantic Coast Lines R. Co. v. Georgia*, 234 U. S. 280, the state statute required the use of electric headlights; in *Chicago, R. I. & P. R. Co. v. Arkansas*, 219 U. S. 453, and in *Missouri P. R. Co. v. Norwood*, 283 U. S. 249, the operation of a train with less than a designated number in the crew was prohibited; and in *Terminal R. Assn. v. Bro. of R. Frainmen*, 318 U. S. 1, the operation of trains without a caboose was prohibited. In these and similar cases the same contention as Appellant here makes was made as to the extra-territorial effect of the law and this Court held *against* the contention.

In *New York, N. H. & H. R. Co. v. New York*, 165 U. S. 628 (commonly known as the New York car-heating case), the extra-territorial effect of the New York car-heating statute was argued to the Court.

"Counsel for the railroad suggests that a conflict between state regulations in respect of the heating of

passenger cars used in interstate commerce would make safe and rapid transportation impossible; that to stop an express train on its way from New York to Boston at the Connecticut line in order that passengers may leave the cars heated as required by New York, and get into other cars heated in a different mode in conformity with the laws of Connecticut, and then at the Massachusetts line to get into cars heated by still another mode as required by the laws of that Commonwealth, would be a hardship on travel that could not be endured." (165 U. S. at 632.)

The Court answered by saying:

"These possible inconveniences cannot affect the question of power in each State to make such reasonable regulations for the safety of passengers on interstate trains as in its judgment, all things considered, is appropriate and effective. Inconveniences of this character cannot be avoided so long as each State has plenary authority within its territorial limits to provide for the safety of the public, according to its own views of necessity and public policy, *and so long as Congress deems it wise not to establish regulations on the subject that would displace any inconsistent regulations of the States covering the same ground.*"

(Emphasis ours.) (165 U. S. at 632-633.)

In *Atlantic Coast Line v. Georgia*, 234 U. S. 280, the same argument was advanced in objection to a state statute which required an electric headlight of a certain type on each locomotive, including locomotives engaged in interstate commerce.

"It is argued that if Georgia may prescribe an electric headlight, other States through which the road runs may require headlights of a different sort, that

for example, some may demand the use of acetylene and that others may require oil; and that, if state requirements conflict, it will be necessary to carry additional apparatus and to make various adjustments at state lines which would delay and inconvenience interstate traffic." (234 U. S. at 290.)

Completely answering this, the Court said:

"If there is a conflict in such local regulations, by which interstate commerce may be inconvenienced— if there appears to be need of standardization of safety appliances and of providing rules of operation which will govern the entire interstate road irrespective of state boundaries—there is a simple remedy; and it cannot be assumed that it will not be readily applied if there be real occasion for it. That remedy does not rest in a denial to the State, in the absence of conflicting Federal action of its power to protect life and property within its borders, but it does lie in the exercise of the paramount authority of Congress in its control of interstate commerce to establish such regulations as in its judgment may be deemed appropriate and sufficient. *Congress, when it pleases, may give the rule and make the standard to be observed on the interstate highway.*" (Emphasis ours.) (234 U. S. at 292.)

The recent opinion in *Terminal R. Assn. v. Bro. of P. Trainmen*, *supra*, is typical of these decisions and would seem to be conclusive against Appellant's contention (318 U. S. 8, 9):

"* * * Appellant contends, and we assume however, that there do not exist, and that it is not reasonably practicable to install, facilities for taking on and dropping off cabooses at the points where the

trains cross the state-line; and that the practical consequence of the order is that if cabooses are to be used in Illinois on runs of the second sort they must also be used at least as far as the nearest switching point in Missouri.

"As to both classes of runs; the effect of the order is in some measure to retard and increase the cost of movements in interstate commerce. This is not to say, however, that the order is necessarily invalid. In the absence of controlling federal legislation this Court has sustained a wide variety of state regulations of railroad trains moving in interstate commerce having such effect. * * *

"If lack of facilities at the state line requires as a practical matter that in order to provide cabooses in Illinois appellant must also provide them for some distance in Missouri, that fact does not preclude Illinois from regulating the operation to the limits of its territory. * * *

3. The Train Limit Law Does Not Invade the Field Already Occupied by Congress by Sections 1 and 9 of the Safety Appliance Act or by Section 25, Part I, of the Interstate Commerce Act. (Reply to Assignment of Error No. 5.)

It is, of course, recognized that a state law which invades a field already occupied by Congress is void and of no effect. —

The Appellant under Assignment of Error No. 5 contends that the Train Limit Law invades a field already occupied by Sections 1 and 9 of the Safety Appliance Act (45 U. S. C. 1 and 9) and by Section 25, Part I, of the Interstate Commerce Act (49 U. S. C. 25). This contention is without merit for a number of reasons:

A. The Fields Occupied by the Federal Statutes Are Different From That Occupied by the Arizona Law.

(1). THE FIELD OCCUPIED BY THE SAFETY APPLIANCE ACT.

The Safety Appliance Act (45 U. S. C. 1-16), as the name implies, deals with the subject of mechanical appliances which are required in the operation of locomotives, cars and trains by railroads engaged in interstate commerce. Section 1 requires the use of (a) power driving-wheel brakes on locomotives and appliances on locomotives for operating the train-brake system, and (b) power brakes on cars in a train. Section 9 provides for the minimum number and "association" of cars in a train which shall be equipped with power brakes. Other sections of the Act prescribe the use of automatic couplers (sec. 2); grab irons (sec. 4); standard drawbars (sec. 5); and sill steps, hand brakes, ladders, running boards and hand holds, as designated by the Interstate Commerce Commission (secs. 11-12).¹

The preamble of Section 1,² referred to in *Johnson v. Southern Pac. Co.*, 196 U. S. 1, 15, as declaring the intention of Congress, reads:

"An act to promote the safety of employees and travelers upon railroads by compelling common carriers engaged in interstate commerce to equip their

¹Comparable statutes not a part of the Safety Appliance Act include the Safety Ash Pan Act (45 U. S. C. 17-22); the Boiler Inspection Act (45 U. S. C. 22-34); and the provisions of Sec. 25 of Part I of the Interstate Commerce Act (49 U. S. C. 25), relating to signal systems, train control devices, etc. which are considered under our next heading.

²(Act of Mar. 2, 1893, c. 196, 27 Stat. 531.)

cars with automatic couplers and continuous brakes and their locomotives with driving-wheel brakes, and for other purposes." (Emphasis supplied.)

In *United States v. State of California*, 297 U. S. 175, 185, this Court stated:

"* * * The Federal Safety Appliance Act is remedial, to protect employees and the public from injury *because of defective railway appliances*, *Swinson v. Chicago, St. Paul, M. & O. Ry. Co.*, 294 U. S. 529; *Fairport, P. & E. R. Co. v. Meredith*, 292 U. S. 589, 594; *Johnson v. Southern Pacific Co.*, 196 U. S. 1, 17, and to safeguard interstate commerce itself from obstruction and injury *due to defective appliances* upon locomotives and cars used on the highways of interstate commerce. * * * (Emphasis supplied.)

Thus it clearly appears that the purpose of the Act is the promotion of safety by the compulsory use of specified mechanical devices. The field occupied is that of *regulating designated equipment* of locomotives, cars and trains, specifically, as to Sections 1 and 9, the power brake mechanism. Cf. *Napier v. Atlantic Coast Line R. Co.*, 272 U. S. 605, 607.

This construction of the Safety Appliance Act is confirmed by its legislative history. The bill from which the Act of March 2, 1893 was derived was H. R. 9350, introduced in the 52nd Congress, 1st Session. The report of the House Committee on Interstate and Foreign Commerce on this bill¹ traces the history of the movement to

¹House Report No. 1678: 52nd Cong. 1st Sess.

relieve the perils due to the use of hand brakes and non-uniform and unsafe couplers. After stating the nature and frequency of the accidents to which railway employees were exposed the report continues (p. 3):

“REMEDY SUGGESTED.

“It is the judgment of this committee that all cars and locomotives should be equipped with automatic couplers, obviating the necessity of men going between the cars, and continuous train brakes that can be operated from the locomotive and dispense with the use of men on the tops of the cars; that the locomotive should be provided with power driving wheels rendering them easy of control.”

The Senate Committee's report on the bill is to the same effect.²

The language of Sec. 1 which is relied on by Appellant came into the bill by Senate amendment. In explaining the amendment to the Senate, Senator Cullom, who was in charge of the bill, stated (24 Cong. Rec. 1273):

“I will state that the first section of the amendment reported by the Committee as a substitute for the House bill simply provides that after the first of January, 1895, it shall be unlawful for a common carrier engaged in interstate commerce by railroad to use on its lines locomotive engines in moving interstate traffic not equipped with power driving-wheel brakes and appliances for operating the trains, etc., the section requiring only a sufficient number of cars, to be so equipped as will enable the engineer to control the train.

²Senate Report No. 1049, 52nd Cong. 1st Sess.

"There is nothing in the section that has any reference to the Interstate Commerce Commission or to any board outside in determining anything about it. The naked proposition is that it shall be unlawful after a given date to run locomotives not equipped with power brakes, or to run any train in interstate traffic which has not a sufficient number of cars in it so equipped with power brakes that the engineer can control it."

The amendment of March 2, 1903 (32 Stat. 943) was designed "to make more clear and effective" the provisions of the 1893 Act.¹ One of its purposes was to "make certain that which was uncertain" in the requirements of section 1 relating to the use and amount of power or train brakes. *United States v. Baltimore and O. R. Co.*, 176 Fed. 114, 116. It accomplished this purpose by including in the Act what is now section 9, providing, among other things, that when any train is operated with power or train brakes not less than 50 percent of the cars in such train shall have their brakes used and operated by the engineer (authority being given the Interstate Commerce Commission to increase the minimum percentage). The amendment thus was a restatement of the amount or proportion of power brakes required to be used.

Section 4 is now to be read and construed with the modifying and explanatory act of 1903. *United States v. Pere Marquette R. Co.*, 211 Fed. 220, 223. When so construed it is clear that the subject of the provisions of the Act here under discussion is the regulation and use of the brake appliances.

(2) THE FIELD OCCUPIED BY SECTION 25 OF PART 1
OF THE INTERSTATE COMMERCE ACT.

Sub-section (b) of section 25 (49 U. S. C. 25(b))
reads:

"* * * the commission may, after investigation, if found necessary in the public interest, order any carrier * * * to install the block signal system; interlocking, automatic train stop, train control, and/or cab-signal devices and/or other similar appliances, methods, and systems intended to promote the safety of railroad operation, which comply with specifications and requirements prescribed by the commission, * * *"

The preamble of the Act of August 26, 1937 (c. 818, 50 Stat. 835) amending Sec. 25 to its present content, reads:

"AN ACT TO require common carriers by railroad to install and maintain certain appliances, methods, and systems intended to promote the safety of employees and travelers on railroads, and for other purposes."

As in the case of the Safety Appliance Act, the field carved out by the provisions of this section is specific. It is the requirement and maintenance of the mechanical equipment thus designated. As Appellant concedes (Br. Vol. I, p. 221), under settled rules of statutory construction, the words "other similar appliances, methods, and systems" refer to devices of the same general nature as those specifically named. *Cf. Missouri Pac. R. Co. v. Norwood*, 283 U. S. 249; 257.

The legislative history of Sec. 25 supports this construction. The section as first enacted (Sec. 441 of the Transportation Act, 1920; 41 Stat. 498) dealt with the requirement of "automatic train-stop or train-control devices or other safety devices". The committee reports upon the measure show that what Congress had in mind was a provision which would hasten the use of these mechanical devices which had been under experimentation for many years. Thus the report of the House Committee on H. R. 10453 states:¹

"AUTOMATIC TRAIN CONTROL.

"Section 439 gives the commission after investigation authority to order any carrier by railroad to install automatic train-stop or train-control devices, which comply with specifications and requirements prescribed by the commission. Automatic train-control devices have passed the experimental stage and in the interest of the public as well as the safety of employees, your committee believes that some action should be taken by Congress which would hasten the installation of such safety devices. * * *

The Conference Report on H. R. 10453² which reported out the section in the form in which it became law stated, in the explanation of the Managers on behalf of the House, that the conference bill contained the House provision respecting the requirement of train-stop or control devices, adding a similar power in the commission as to "other safety devices".

¹House Report No. 456, 66th Cong. 1st Sess., p. 22.

²House Report No. 650, 66th Cong. 2nd Sess., p. 70.

There had been in effect since 1906 a statute (45 U.S.C. 35) which empowered the Commission to investigate and report upon the use and necessity for block signal systems and appliances for the automatic control of railway trains, and since 1908 an additional statute (45 U. S. C. 36) which authorized the Commission to investigate, test experimentally, and report upon the use and need of "any appliances or systems intended to promote the safety of railway operation which may be furnished in completed shape to such commission for such investigation and test * * *."

It was after years of such investigation and experience that the section under consideration was adopted, and it is in this setting that the statute is to be understood and construed.¹

Section 25 was amended to its present content by the Act of August 26, 1937 (50 Stat. 835). This amendment extended the authority of the Commission to include block signal systems, interlocking devices and cab-signal systems. Again the committee reports on the amendment speak only of mechanical devices and systems as the subject of the legislation.²

Reference to the full text of the section demonstrates that it is intended to occupy only the field of requiring and regulating the specified mechanical devices. Sub-

¹See *Delaware & H. Co. v. United States*, 45 F. 2d 831, for a description of automatic train-stop or train-control devices and Commission orders entered under present Sec. 25. And see also I Sharfman, *The Interstate Commerce Commission*, p.275ff. for an explanation of the circumstances surrounding the enactment of the section.

²Senate Report No. 245, 75th Cong. 1st Sess.; House Report No. 456, 75th Cong. 1st Sess.

secs. (c), (d) and (e) implement sub-sec. (a). Sub-sec. (c) requires each railroad to file with the commission its rules for the installation, inspection, maintenance and repair of the systems, devices and appliances covered by this section. Sub-sec. (d) authorizes the commission to inspect and test them; and Sub-sec. (e), stating the requirement of obedience to commission orders, provides that it shall be unlawful for any carrier to use such systems, etc. unless such *apparatus* is in proper condition and safe to operate.

There is no evidence that the interstate Commerce Commission understands that this section affords it jurisdiction to do more than to regulate the designated appliances. Its conception of the powers conferred upon it is stated in the *Power Brake Investigation Case*, 91 I. C. C. 481 (quoted at pp. 221-2, Vol. I, of Appellant's brief) as follows:

"This is a proceeding instituted by us on our own motion under Section 26 [now Section 25] of the Interstate Commerce Act, which authorizes us, after investigation, to *order the installation of automatic train-stop or train-control devices, or other safety devices*, which comply with specifications and requirements prescribed by us, * * *. (Emphasis ours.)

Nowhere in that report, or in the subsequent reports in that proceeding (see Appendix to Appellant's Brief, Vol. I) is there any finding, order, or requirement made respecting the regulation of train lengths. We understand that the Commission has never entered any order limiting the number of cars in a train, or made any investigation or recommendation concerning the latter subject.

(3) THE FIELD OCCUPIED BY THE ARIZONA LAW.

This field is, of course, the number of cars which may be run in a train. It does not regulate the mechanical equipment or appurtenances upon cars, locomotives or trains. Its purpose is to protect against hazards due to the number of cars in, or the length of, trains. These hazards include, among others, those due to "slack" and slack "action", including those wherein the functioning of the brakes is not a factor; dangers wherein employees are prevented from properly giving or receiving signals or communications or from observing defects in the train; hazards caused by loss of efficiency of employees due to fear of danger and to increased responsibility and difficulty in the performance of duty.

B. No Intention Can Be Attributed to Congress in Enacting the Federal Statutes to Occupy the Field of Regulating Train Lengths.

It is true that the purpose of both the federal and state statutes here under considerations is to promote safety. Assuming for the moment the field of safety to be one generic field of regulation, it is of course recognized that Congress may limit its occupation to only a part of such field, and thus leave the remainder open to action by a state. *Savage v. Jones*, 225 U. S. 501, 533; *Kelly v. Washington*, 302 U. S. 1, 10. Under this rule, it is clear that Congress, in selecting the field of safety appliances and equipment as the object of regulation, has occupied only the portion of the general field of safety regulation thus selected.

The specific nature of the requirement of these federal laws emphasizes the intent to confine their application to

the subjects designated. *Atlantic Coast Line v. Georgia*, 234 U. S. 280. And the very detail in which the subjects of the federal regulation have been specified precludes the statutes' extension to other subjects by implication. Cf. *Peoria Ry. Co. v. United States*, 263 U. S. 528, 534. We suggest that *Atlantic Coast Line v. Georgia* applies with special force here. Even though the device required by the Georgia law, the electric headlight, was a mechanical appliance, this Court held that Congress by enacting the Safety Appliance Act had not intended or decided to legislate with respect to headlights, and that the state was free to legislate on the subject. And see also *International etc. R. Co. v. Railroad Comm. of Texas*, 281 S. W. 1084 (affirmed 275 U. S. 503) where, prior to the amendment of present Sec. 25 of Part 1 of the Interstate Commerce Act to cover interlocking devices, it was held that the right of a state to require such devices had not been ousted by this section. *A fortiori* where, as in our case, the matters dealt with by the state and federal statutes are so different in nature, the intention of Congress to leave the former free of regulation appears clear. In this connection, it may be noted that in *Terminal R. Assn. v. Brotherhood of R. Trainmen*, 318 U. S. 1, 4, this Court expressed its understanding that neither the Safety Appliance Act nor the Interstate Commerce Act by themselves and unimplemented by Commission action lay down any requirement respecting the use of cabooses on the runs in question, saying that at least in the absence of Commission action these Acts do not themselves preclude the state order. It was added that the court found it unnecessary to decide what might be the extent of the Commission's power under such Acts. In our case, as in this one, the

Commission has not made any order on the subject covered by the state statute.

From the analysis made above it is quite clear that the federal and state statutes occupy different fields. They accomplish their regulation by wholly different means, and operate on entirely different objects. The situation here is the reverse of that presented in the *Napier* case where the Court, in holding that federal and state statutes occupied the same field, observed that:

"The federal and the state statutes are directed to the same subject—the equipment of locomotives. They operate upon the same object." (272 U. S. at p. 612.)

In view of the differences thus shown, we submit that the federal statutes do not occupy the field covered by the Arizona law, and that no intention can be attributed to Congress to exclude or displace the state act. This is particularly plain when the federal statutes are construed in accord with the recognized rule that the intention of Congress to exclude or supersede state legislation—particularly where the state measure has been enacted to preserve public safety—must be definitely expressed and clearly manifested, and is not to be lightly inferred.

Mauier v. Hamilton, 309 U. S. 598, 614;

H. P. Welch Co. v. New Hampshire, 306 U. S. 79, 85, and cases there cited;

Missouri Pac. R. Co. v. Norwood, 283 U. S. 249, 250.

Cf. *Cloverleaf Butter Co. v. Patterson*, 315 U. S. 48, 156.

C. There Is No Conflict Between the Federal Statutes and the Arizona Law.

The test of whether there is conflict between federal and state statutes is an important aid in resolving the point under consideration. Unless such conflict is shown, the sovereign power of the state to enact legislation under its reserved police power will be sustained. *Parker v. Brown*, 317 U. S. 341, 359. Cf. *Cloverleaf Butter Co. v. Patterson*, *supra*. The yardstick to be used in determining the question of such conflict is stated by this Court as follows:

"May not the statutory provisions stand without obstructing or embarrassing the execution of the act of Congress? This question must, of course, be determined with reference to the settled rule that, a statute enacted in execution of a reserved power of the state is not to be regarded as inconsistent with an act of Congress passed in the execution of a clear power under the Constitution, unless *the repugnance or conflict is so direct and positive that the two acts cannot be reconciled or stand together.*" (Emphasis ours.)

Missouri etc. R. Co. v. Haber, 169 U. S. 613, 623.

"The principle is thoroughly established that the exercise by the state of its police power, which would be valid if not superseded by federal action, is superseded only where the repugnance or conflict is so 'direct and positive' that the two acts cannot be 'reconciled or consistently stand together.'" — (Emphasis ours.)

Kelly v. Washington, 302 U. S. 1, 10.

In applying this yardstick in the instant case, a consideration of the history of these several statutes would seem to be sufficient to show the fallacy of the Appellant's contention.

Section 1 of the Safety Appliance Act was enacted by Congress in 1893, Section 9 in 1903, and Section 25, Part I, of the Interstate Commerce Act in 1920. The Train Limit Law was enacted by a vote of the people of Arizona in 1912.

Continuously since the enactment of the Train Limit Law in 1912, the Arizona Train Limit Law and Sections 1 and 9 have stood together in full force and effect. Continuously since 1912, Sections 1 and 9 of the Safety Appliance Act have been fully and completely enforced in Arizona. Brake appliances and changes in brake appliances have been approved by the Interstate Commerce Commission and increases in the percentage of cars in a train required to be operated by power brakes have been ordered by the commission. Continuously since 1912, the railroads have complied in Arizona, just as elsewhere, with the provisions and requirements of said Sections 1 and 9. At no time has the Train Limit Law in any manner or to any extent obstructed or embarrassed the enforcement or execution of said Sections 1 and 9. Not the slightest difference has resulted by reason of the Train Limit Law in the execution and enforcement of Sections 1 and 9 in Arizona from their enforcement and execution in other states.

Likewise, Section 25, Part I, of the Interstate Commerce Act, since its enactment in 1920, and the Train Limit Law have stood together. Section 25 of the Interstate Commerce Act has been fully and completely en-

forced in Arizona, just as elsewhere, and complied with by the railroads. At no time has the Train Limit Law obstructed or embarrassed the enforcement or execution of said Section 25.

The fact that the Train Limit Law has operated side by side with Sections 1 and 9 of the Safety Appliance Act for approximately thirty years, and side by side with Section 25, Part I, of the Interstate Commerce Act for approximately twenty years without in the least iota obstructing or embarrassing the enforcement or execution of these federal statutes, or either of them, constitutes conclusive evidence, we believe, under the decisions of this Court cited *supra*, that the Train Limit Law does not invade a field already occupied by these federal statutes.

There is, of course, a plain reason why these statutes operate without conflict. The Safety Appliance Act and requirements issued under Section 25 regulate the brake equipment to be used on a train, not the number of cars therein. The Arizona law regulates the number of cars without reference to brake equipment. Thus the Federal statutes require adequate power brakes (*i. e.*, power brakes on a specified proportion of the cars in a train) without regard to the length of the train. This requirement is the same whether 5 or 100 cars be operated in a train. Indeed, a carrier may have as many cars in a train as it pleases, be it 5 or 500, so long as the brake equipment meets the federal standards.

Appellant's contention (brief, Vol. I, p. 215 *et seq.*) that Section 1 of the Safety Appliance Act should be construed to regulate the length of trains is without substance. This contention is based upon the language of the section that

no train shall be run "that has not a sufficient number of cars in it so equipped with power or train brakes that the engineer * * * can control its speed without requiring brakemen to use the common hand brake for that purpose.

This provision should be construed in the light of its purpose. It was enacted to obviate the dangers involved in the use of hand brakes: *New York Central R. Co. v. United States*, 265 U. S. 41, 44-5; *United States v. Grand Rapids & I. Ry.*, 244 Fed. 609, 612; *Virginian Ry. Co. v. United States*, 223 Fed. 748, 751. This purpose was accomplished by requiring the substitution of an improved and safe mechanical device (power brakes) for an unsafe or defective one (hand brakes): *United States v. State of California*, 297 U. S. 175, 185. The regulation does not go to the number of cars that might be run in a train, but goes only to the number which shall be equipped with power brakes, i. e., a number sufficient to make the use of hand brakes unnecessary.

It is undoubtedly true, as Appellant states, that there must be some limit to the effectiveness of any air brake. And when that limit is passed the power brake provision of the Safety Appliance Act may tend to regulate the number of cars which may be operated. But if such is the effect of this provision, it certainly does not show the "positive or direct" conflict or repugnance which is required to supersede the state police measure. *Kelly v. Washington*, quoted *supra*. Indeed, there is no conflict at all, because the practical limit of the effectiveness of air brakes may operate as a natural law without disturbing the enforcement of the state law, and *vice versa*. At most this effect is but the indirect and incidental result of the

regulation of the braking equipment required by the federal law. The carrier may have as many cars in the train as it pleases, so long as the brake equipment meets the requirement of this section.

This, we submit, is the holding of the courts in *Virginian Ry. Co. v. U. S.*, 223 Fed. 748; *New York C. R. Co. v. U. S.*, 265 U. S. 41; *U. S. v. Great Northern R. Co.*, 229 Fed. 927; *U. S. v. Grand R. & I. R. Co.*, 244 Fed. 609; and *Pennsylvania Co. v. U. S.*, 241 Fed. 824.

The Appellant, in an endeavor to create conflict between the state and federal statutes, argues that the purpose and effect of the Train Limit Law is to regulate with respect to the brakes used in train operations, and that Appellee has admitted or recognized this by the introduction of evidence with respect to air brakes and their operation. (Br., Vol. 1, p. 233, *et seq.*) This argument is ingenious but fallacious.

This argument assumes that the hazards resulting from slack action, and particularly from slack action resulting from the use of air brakes, is the only hazard protected against by the Train Limit Law. In our argument upon the Safety, Evidence, beginning at page 93 of this brief (to which we refer to save repetition); we show that in addition to the hazard due to slack action the Train Limit Law protects against hazards in no way related to slack action or to the brake equipment on a train. We also show with respect to slack action that serious slack action accidents occur at times when the brakes are not being operated and therefore without any relation or connection to the brakes. Where a train is operated in territory where there are hog-backs and dips, the head-end of the train may be on an upgrade which retards its speed while the rear-end

is on a downgrade, causing the slack to run-in. Or the speed of the head-end of a train may be reduced by the resistance of a curve and the run-in of the slack from the rear-end cause an accident without the brakes being touched. Example of these two types of accidents are found in item 45, Record, page 3329, and item 36, Record, page 3328. A more complete discussion of these and similar accidents appears beginning at page 102 of this brief, to which we refer to save repetition.

The Appellant overlooks the purpose of Appellee's evidence respecting air brakes. Appellant contended below, and is contending here (Br., Vol. I, p. 270 *et seq.*), that the Train Limit Law is invalid because of changes in conditions since its enactment. It was to meet this contention and show that the hazard resulting from slack action in long trains has not been removed by improvement in air brakes, that the evidence as to air brakes and their operation was presented by the Appellee. It requires only a reading of the Train Limit Law to see that it in no way regulates or has relation to air brakes or other appliances. It limits the length of freight trains to 70 cars and passenger trains to 14 cars, *regardless of the type or character of brakes used, or their efficiency or inefficiency.* Certainly there is no regulation of brake equipment or other appliance there.

That the Safety Appliance Act and Sec. 25 of the Interstate Commerce Act do not conflict with the state law may be further demonstrated by the fact that the former neither provide for, or by implication reach, the kind of regulation contemplated by the latter or the results accomplished by it. Assume the Interstate Commerce Commission in an investigation should find and determine that

freight trains with more than 70 cars and passenger trains with more than 14 cars cannot be operated safely. Where in the Safety Appliance Act or in Sec. 25 of the Interstate Commerce Act is there any power or authority given to the Commission *to order that no trains be operated with the number of cars in excess of the limit fixed by the Commission?* Or suppose a Commission investigation shows a territory or stretch of track with a sag or dip; that the brakes are never required, nor could they be used, in operating over this territory; that there is usually slack action in trains passing across this dip due to the slack running in from the rear as the speed of the head-end of the train is slowed down coming up out of the dip; that accidents with many casualties are *frequent on long* trains but rarely, if ever, occur on *short* trains [compare item 45, R. 3329—the I. C. C. report of this accident on the Pennsylvania R. R. at Manor, Pa., is a part of Ex. 311]. Since the brakes are not used in operating over the territory, the accidents were not due in any respect to the brake equipment—nor to any other appliance. It would seem that the only logical finding that the Commission could make would be that the accidents were caused by the severity of the slack action due to the length of the train. An order requiring certain brake equipment would not remedy the situation because the brakes were not involved in the accident. The only order which would prevent the accidents and resulting casualties would be an order limiting the length of trains operated over the territory. *But where would the Commission find the power or authority to enter such an order?* Certainly not under the Safety Appliance Act or Sec. 25 of the Interstate Commerce Act because they grant to the Commission *only power and authority to order the use of specified standards*

of brakes or other appliances. The situations may be multiplied wherein factors not involving the brake mechanism or any mechanical appliance may require regulation of train lengths in the interest of safety. No power or authority is given the Commission in these situations or any other to limit the number of cars that may be operated in a train.

In summary, the Arizona Train Limit Law, which Appellant contends invades a field already occupied by Congress by reason of the aforesaid federal statutes, deals *only* with the *number* of cars permitted in trains operated in the State of Arizona. It in no way deals with, relates to or is concerned with the brake equipment, signal system, train control, or any other appliance used in the operation of the trains. The Arizona law is violated only when a train is operated within the state with more cars than the law permits. There can be no possible repugnance or conflict between the Arizona Train Limit Law and the federal statutes named because the Train Limit Law can in no possible way obstruct or embarrass the enforcement or execution of those statutes, or any of them, and because the state statute and the federal statutes deal with entirely different and unconnected subjects. State regulation of the number of cars in a train does not and cannot, in any possible way, affect or conflict with the federal regulation of the brake equipment, signal system, train control or other appliances used.

D. Assuming Arguendo That Section 25 of Part I of the Interstate Commerce Act Contemplates Authority in the Commission to Regulate Train Lengths, Occupancy of This Field Has Not Occurred.

Where Congress delegates to an administrative agency authority to regulate in a given field, two questions arise in determining whether state authority is thereby ousted: (1) whether the agency has acted in pursuance of such authority, and (2) whether Congress intended the legislation to occupy the field unimplemented by Commission action. This rule, among others, governs the applicability of Sec. 25 of Part I of the Interstate Commerce Act in the instant case.

It will be conceded, we take it, that the Commission has made no order limiting train lengths under this section.

As to the intention of Congress to occupy the field in the absence of administrative action, we believe (again assuming administrative authority to have been conferred) the situation here to be like that in *H. P. Welch Co. v. New Hampshire*, 306 U. S. 79. There this Court decided that Congress did not intend the state safety measure to be nullified before the federal agency had prescribed regulations on the matter. As one of the factors making clear the intention of Congress, the Court pointed out that the federal statute (Sec. 204(a) of the Motor Carrier Act), although imposing upon the Commission the duty to "regulate", merely authorized it to establish reasonable requirements with respect to the matter dealt with by the state law, viz., maximum hours of service of drivers of motor vehicles. (306 U. S. at p. 84.)

In our case, all Section 25(b) does is to authorize the Commission to order the use of the designated devices—

and this only after investigation discloses the necessity therefore. The section does not go as far as the Motor Carrier Act, for it does not impose a "duty" to "regulate" as does the latter Act.¹ Moreover, the authority of the Commission to regulate train lengths (assumed *arguendo*) would have to be based upon a construction of the statutory language which, to say the least, is far-fetched and not readily ascertained from the language itself. Thus, where regulation is so plainly dependent upon prior investigation and the exercise of administrative discretion as a condition precedent to its imposition, and also upon a strained construction of the statutory language, we submit that it cannot be said that Congress had manifested its clear intention to displace the Arizona law by the mere enactment of the enabling legislation set forth in Sec. 25.

4. The Arizona Law Is Not Unconstitutional Because of Claimed Burden Upon, or Interference With, Interstate Commerce, or Because of Alleged Unreasonableness as a Safety Regulation.

Assignments of Error 3, 4 and 6 charge, in substance, that the Supreme Court of the State of Arizona erred in failing to hold the Train Limit Law:

(3 and 4) unconstitutional and in violation of the Commerce Clause because its necessary and inevitable effect is to interfere with, delay, obstruct and regulate directly, substantially and reasonably the operation and movement of interstate trains and to impose direct, substantial and

¹It will be observed that in the *W. C. C. Co.* case such duty to regulate was not considered to be of controlling significance in view of the permissive nature of the authority to act.

unreasonable financial burdens upon the interstate commerce carried on by Appellant.

(6) in violation of the Commerce Clause and the Due Process Clause of the Fourteenth Amendment because it operates arbitrarily and unreasonably to deprive Appellant of its property without due process of law and bears no reasonable relation to health or safety.

We are considering these assignments together because in the final analysis each presents the identically same questions.

These assignments of error present two propositions, namely:

1. The extent of the burden imposed by the Train Limit Law is so great that, notwithstanding it has a rational relation to safety, it imposes an unreasonable burden on interstate commerce in violation of the Commerce Clause and of the Fourteenth Amendment to the Constitution.
2. The Train Limit Law has no rational relation to safety.

The Appellee contends:

1. The extent of the burden on interstate commerce, if any, by reason of the Train Limit Law may not be considered by the Court in determining the reasonableness of the law.
2. The Train Limit Law has a rational relation to and basis in safety and is therefore a proper exercise of the state's police power and is constitutional.

A. The Extent of the Burden on Interstate Commerce, if Any, by Reason of the Train Limit Law May Not Be Considered by the Court in Determining the Reasonableness of the Law.

In considering this proposition *it must be assumed* that the Train Limit Law ~~has a rational relation to safety~~. If the law has no rational relation to safety, the burden on interstate commerce resulting by reason of the law is, as we have conceded in our discussion of Assignment of Error 1, *direct* and the law is unconstitutional because it is a *direct* regulation of interstate commerce. Where the state regulation is *direct* the extent of the burden, whether it is great or small, has no bearing upon the question of the constitutionality of the law. The law is unconstitutional *regardless* of the extent of the burden on interstate commerce.


A substantial part of the evidence presented by the Appellant in the trial ~~court~~ was presented for the purpose of showing the burden imposed upon interstate commerce by the Train Limit Law. As we have heretofore pointed out (p. 42, *supra*), we differ greatly with Appellant concerning the conclusions to be drawn from the evidence as to the extent of the burden shown, the cost of compliance, the interference with operations and the like. However, we present no argument or discussion, other than heretofore presented, on this question for the reason that we believe that, under the decisions of this Court, while the evidence was admissible to show *a burden* on interstate commerce resulted from the operation of the law, the extent of the burden is *not* a question or element to be considered by the Court in determining the constitutionality of the Train Limit Law.

(a) UNDER THE COMMERCE CLAUSE.

The question as to whether *under the Commerce Clause*, in determining the validity of a state statute enacted under the state's police power, the consideration of the extent of the burden imposed on interstate commerce—whether it is *too great* with relation to the national interest in commerce—is a legislative or judicial function, has been fully discussed in our argument concerning the so-called "exclusive national field" of regulation of interstate commerce. The Appellant's contention here that the extent of the burden may be considered by the Court, in determining the "reasonableness" of the state law under the Commerce Clause, is merely a repetition, dressed in different clothes, of Appellant's argument as to the "exclusive national field" of regulation of interstate commerce. The reasonableness, in this respect, of a state police statute *under the Commerce Clause* can only be measured by its effect on interstate commerce—whether the burden imposed on interstate commerce is *too great*. The determination of that question is, as we have pointed out, a legislative, and not a judicial, function.

(b) UNDER THE FOURTEENTH AMENDMENT.

In considering the constitutionality of state police statute under the Fourteenth Amendment, the cost of compliance or the extent of the burden resulting from the state regulation *becomes a matter of judicial consideration only* when a method of regulation is shown, other than that adopted by the law in question, which will accomplish the identical object or purpose of the law in question. This applies to both the Commerce Clause and the Fourteenth Amendment.



In *Eric R. R. Co. v. Br'd of Comm.*, 254 U. S. 394, 410, in sustaining the constitutionality of a state law requiring a separation of grades where a railroad crossed a highway, this Court said:

"Being places to which the public is invited, and that it necessarily frequents, the state, in the care of which this interest is, and from which, ultimately, the railroads derive their right to occupy the land, has a constitutional right to insist that they shall not be made dangerous to the public, *whatever may be the cost to the parties introducing the danger.* That is one of the most obvious cases of the police power, or to put the same proposition in another form, the authority of the railroads to project their moving masses across thoroughfares must be taken to be subject to the implied limitation that it may be cut down whenever and so far as the safety of the public requires. It is said that if the same requirement were made for the other grade crossings of the road it would soon be bankrupt. That the states might be so foolish as to kill a goose that lays golden eggs for them, has no bearing on their constitutional rights. If it reasonably can be said that safety requires the change, it is for them to say whether they will insist upon it, and neither prospective bankruptcy nor engagement in interstate commerce can take away this fundamental right of the sovereign of the soil." (Emphasis ours.)

In *Lehigh V. R. Co. v. Br'd of Comm.*, 278 U. S. 24, 34, the italicized part of the above quotation was modified by the following statement:

"This is not to be construed as meaning that danger to the public will justify great expenditures, unrea-

sonable burdening the railroad, when less expenditure can reasonably accomplish the object of the improvements and avoid the danger." (Emphasis ours.)

In *South Carolina Hy. Dept. v. Barnwell, Bros., supra*, the Court said (303 U. S. at 190):

"In the absence of such legislation (Congressional legislation) the judicial function under the Commerce Clause * * * as well as the Fourteenth Amendment, stops with the inquiry whether the state legislature in adopting regulations such as the present has acted within its province, and whether the means of regulation chosen are reasonably adapted to the end sought * * *." (Parenthesis and emphasis ours.)

In other words, the holding of the Court in the *Eric R. R. Co.* case, that cost of compliance may not be considered by the Court in determining the constitutionality of state police power regulation, was modified only with respect to situations where it was shown that the object of the state regulation in question could be accomplished at less expense by other methods of regulation.

And see:

Nashville C. & St. L. R. Co. v. White, 278 U. S. 436;

Missouri P. R. Co. v. Omaha, 235 U. S. 121;

C. & R. Co. v. Tranbarger, 238 U. S. 67.

No such situation is shown in the record herein. The object of the Train Limit Law is to protect against the dangers which are incident to the increase in the length of a train. No method, other than that adopted by the Train Limit Law, has been shown which will accomplish this object, and the exception or modification stated in the *Lehigh V. R. Co.* case has no application here.

(c) UNDER THE COMMERCE CLAUSE AND THE
FOURTEENTH AMENDMENT.

When the constitutionality of a state statute enacted under the state's police power is in question, in the absence of Congressional legislation on the subject, the judicial function under the commerce clause * * * as well as the Fourteenth Amendment, stops with the inquiry whether the state legislature in adopting regulations such as the present has acted within its province, and whether the means of regulation chosen are reasonably adapted to the end sought. (303 U. S. at 190.)

That the Legislature and the people of the State of Arizona acted within their province in adopting the Train Limit Law has been established by the decisions of this Court. Paraphrasing the language of Mr. Chief Justice Stone in *South Carolina Hy. Dept. v. Barnwell Bros.*, 303 U. S. at 190. Here the first inquiry has already been resolved by the decisions of this Court that a state may impose nondiscriminatory restrictions with respect to the operation of railroads engaged in interstate commerce as a safety measure. Among the cases which have so resolved are the following:

Smith v. Alabama, 124 U. S. 465;

Nashville C. & St. L. R. Co. v. Alabama, 128 U. S. 96;

New York, N. H. & H. R. Co. v. New York, 165 U. S. 628;

Chicago, R. I. & P. R. Co. v. Arkansas, 219 U. S. 453;

St. Louis M. & S. R. Co. v. Arkansas, 240 U. S. 518;

Hemmington v. Georgia, 163 U. S. 299;

Missouri P. R. Co. v. Norwood, 283 U. S. 249;

Eric R. R. Co. v. B'd of Comm., 254 U. S. 394;

Lehigh V. R. Co. v. B'd of Comm., 278 U. S. 24;

Missouri K. & T. R. Co. v. Haber, 169 U. S. 613;

Atlantic C. L. R. Co. v. Georgia, 234 U. S. 280;

Terminal R. Ass'n. v. Bro. of R. T., 318 U. S. 1.

In resolving the second inquiry courts do not sit as Legislatures, either state or national. They cannot act as Congress does when, after weighing all the conflicting interests, state and national, it determines when and how much the state regulatory power shall yield to the larger interests of a national commerce. * * * a court is not called upon as are state Legislatures, to determine what, in its judgment, is the most suitable restriction to be applied of those that are possible, or to choose that one which in its opinion is best adapted to all the diverse interests affected. (Citing cases.) When the action of a Legislature is within the scope of its power, fairly debatable questions as to its reasonableness, wisdom and propriety are not for the determination of the courts, but for the legislative body; on which rests the duty and responsibility of decision. (Citing many cases.) * * * This is equally the case when the legislative power is one which may legitimately place an incidental burden on interstate commerce. It is not any the less a legislative power committed to the states because it affects interstate commerce, and courts are not any the more entitled, because interstate commerce is affected, to substitute their own for the legislative judgment. (Citing many cases.) (303 U. S. at 190, 191.)

The Solicitor General suggests that the test as to whether or not the state police statute is reasonably adapted to the end sought is not the same under the Commerce Clause as under the Fourteenth Amendment. We have found no decision by this Court which supports this suggestion, except in the situation referred to in *Lehigh Valley R. Co. v. B'd. of Comm.*, *supra*. On the contrary, in those cases where the validity of a state police statute has been brought in question under both the Commerce Clause and the Fourteenth Amendment, as in *South Carolina Hy. Dept. v. Barnwell Bros.*, *supra*, one and the same test has been applied under the Commerce Clause and under the Fourteenth Amendment in determining whether the statute was "reasonably adapted to the end sought."

The test or yardstick to be used by the Court has been variously stated in the decisions of the Court.

"Being a legislative judgment it is presumed to be supported by facts known to the legislature unless facts judicially known or proved precluded that possibility. Hence, in reviewing the present determination, we examine the record *not to see whether the findings of the court below are supported by the evidence, but to ascertain upon the whole record whether it is possible to say that the legislative choice is without rational basis.*" (Emphasis ours.)

South Carolina Hy. Dept. v. Barnwell Bros., 303 U. S. at 191.

Hence, in passing on the validity of the present classification, it is not the province of a court to hear and examine evidence for the purpose of deciding

again a question which the legislature has already decided. *Its function is only to determine whether it is possible to say that the legislative decision is without rational basis.*" (Emphasis ours.)

Clark v. Paul Gray, 306 U. S. 583, 594.

"The legislature is, in the first instance the judge of what is necessary for the public welfare, and a judicial review of its judgment is limited. *The earnest conflict of serious opinion* does not suffice to bring it within the range of judicial cognizance." (Emphasis ours.)

Eric R. Co. v. Williams, 233 U. S. 685, 699.

* * * The extent to which, as means, they conduce to that end, the degree of their efficiency, the closeness of their relation to the end sought to be attained, are matters addressed to the judgment of the legislature, and not to that of the courts. *It is enough if it can be seen that in any degree, or under any reasonably conceivable circumstances, there is an actual relation between the means and the end.*" (Emphasis ours.)

Stephenson v. Binford, 287 U. S. 251, 272.

And see:

Nashville etc. R. Co. v. White, 278 U. S. 456;

McLean v. Arkansas, 211 U. S. 539;

Tanner v. Little, 240 U. S. 369;

Chicago, Burlington & Quincy Railroad Co. v. McGuire, 219 U. S. 549;

Arizona Copper Co. v. Hammer, 250 U. S. 400;

Eric R. Co. v. Williams, 233 U. S. 685;

Standard Oil Co. v. Marysville, 279 U. S. 582;

Stephenson v. Binford, 287 U. S. 521;

Gant v. Oklahoma City, 289 U. S. 98;

Bayside Fish Flour Co. v. Gentry, 297 U. S. 422.

In all these cases where the constitutionality of a state police measure was in question under both the Commerce Clause and the Fourteenth Amendment *one and the same test* was applied in determining whether the state statute was reasonably adapted to the end sought. We have found no case to the contrary. And we can see no logical reason why, in determining whether a state police measure is reasonably adapted to the ends sought, one test should be used under one constitutional provision and another test be used under another constitutional provision. It is difficult to understand how a state statute could be held reasonably adapted to the purpose of safety under the Commerce Clause and the same statute held not reasonably adapted to that purpose under the Fourteenth Amendment—or vice versa.

Under both the Commerce Clause and the Fourteenth Amendment to the Constitution the question as to whether or not the burdens upon interstate commerce resulting from state police power regulation are too great is legislative and for Congress, which may protect the national interest by legislation curtailing the state's power.

We believe under the decisions of this Court hereinbefore cited, the determination of the validity of the Train Limit Law rests *entirely* upon correctness of the contention that the law has a rational basis in safety. If the contention that the law has a rational basis in safety is supported by the record, the law is valid. If this conten-

tion is not supported by the record, then the law is a direct regulation of interstate commerce and invalid.

Before presenting our discussion of the record, and replying to argument presented beginning page 270, Volume I, of Appellant's brief, we refer to certain further legal principles, often stated by this Court, to be applied when determining whether or not state regulation of interstate commerce is valid as a proper exercise of the state's police power.

It is not essential to the validity of a state statute enacted under the police power that the purpose of the statute be stated. The necessary effect of the statute and not its stated purpose determines its validity.

The question whether a state law deprives a party of rights secured by the Federal Constitution depends not upon how it is characterized, but upon its practical operation and effect.

Mountain Timber Co. v. Washington, 243 U. S. 219, 237.

And see:

Standard Oil Co. v. Graves, 249 U. S. 389;

Ludwig v. Western Union Co., 216 U. S. 146, 162.

It is presumed that the legislature intended to act within the scope of its lawful authority:

Ex parte Young, 209 U. S. 123, 165-166;

Érie R. Co. v. Williams, 233 U. S. 685, 699;

Mountain Timber Co. v. Washington, 243 U. S. 219, 237-238;

United States v. Butler, 297 U. S. 1, 67.

While a law valid when enacted may become invalid by reason of changed conditions.

United States v. Carolene Products Co., 304 U. S. 144, 153.

every legislative enactment is presumed to be valid and constitutional, and the burden of proof is on those who seek to overthrow it. One who relies on changed conditions to invalidate a statute has the burden of proving that by reason of the changed conditions it is now possible to say, upon the whole record, "that the legislative choice is without rational basis."

South Carolina Hy. Dept. v. Barnwell Bros., 303 U. S. 177, 192;

Ex parte Young, *supra*;

Erie R. Co. v. Williams, *supra*;

Mountain Timber Co. v. Washington, *supra*.

The legislative judgment is presumed to be supported by facts known to it unless facts judicially known or proved preclude that possibility.

Clark v. Paul Gray, 306 U. S. 583, 594;

South Carolina Hy. Dept. v. Barnwell Bros., *supra*.

The appellant urges that in determining the validity of the Train Limit Law the Court may give consideration to the "common belief" that the law is unreasonable, and that this "common belief" is shown by the refusal of Congress and all but four states to enact a train limit law, and by the Interstate Commerce Commission Order No. 85, suspending all train limit laws during the war.

The refusal of a state legislature to enact such law is no indication of a "common belief" the law is unreasonable.

able. State legislatures determine state policy based upon conditions within the state. The most that can be said concerning the refusal of a state legislature to enact such a law is that the legislature considered it unnecessary in that particular state. And the measure may have prevailed in the lower house of the legislature and have been defeated by one vote in the senate, in which event the "common belief" would seem to be that the law was reasonable and desirable, although not enacted. As Appellant states (Appellant's Br., Vol. I, p. 299), employees through their organizations have appeared in support of proposed measures. But likewise representatives of the management have appeared in opposition. Legislative action or inaction is no indication of "common belief." As this Court said in *Adkins v. Children's Hospital*, 261 U. S. 525, 559-560:

"We are asked, upon the one hand, to consider the fact that several states have adopted similar statutes, and we are invited, upon the other hand, to give weight to the fact that three times as many states, presumably as well informed and as anxious to promote the health and morals of the people, have refrained from enacting such legislation. We have also been furnished with a large number of printed opinions approving the policy of the minimum wage, and our own reading has disclosed a large number to the contrary. These are all proper enough for the consideration of the law-making bodies, since their tendency is to establish the desirability or undesirability of the legislation; but they reflect no legitimate light upon the question of its validity, and that is what we are called upon to decide. The elucidation of that question cannot be aided by counting heads." (Emphasis ours.)

Likewise, the most that can be said concerning the refusal of Congress to pass a train limit law is that it considered a *national law* limiting the number of cars in a train was unnecessary. It is no indication of a "common belief" that *local or state regulation* was unnecessary or unreasonable.

Neither has the Interstate Commerce Commission by Service Order No. 85 indicated a belief on the part of the commission that state train limit laws are unnecessary or unreasonable. Service Order No. 85 in part provides [Par. 95.2, App. p. 2]:

"This order, being based upon conditions of war emergency, shall not constitute a precedent for peacetime operations."

This indicates a belief that, while train limit laws should give way to the war emergency, they are a reasonable and proper regulation in peacetime operations.

"Belief" imports knowledge or information, at least to a degree sufficient to cause or form an opinion. It imports thought and consideration with respect to the matter in question. Very few people other than those connected with the operation of trains, give a thought to the manner in which trains are operated or whether one type of operation is more dangerous than another. They have no knowledge or information concerning the effect of train lengths on train operations, and therefore give no thought to and have no beliefs concerning the reasonableness of laws limiting train lengths. Of those connected with train operations, the *greater* number (the employees) believe the Train Limit Law is reasonable, proper and necessary. "Common belief", if there be such in relation to the Train Limit Law, is *in favor of the law*.

B. The Arizona Train Limit Law Has a Rational Relation to Safety.

The purpose and effect of the Arizona Train Limit Law is to protect against the dangers incident to the increase in the number of cars in trains operated. These dangers are real, and the Train Limit has a real basis in safety and is a proper exercise of the state's police power.

(a) SLACK ACTION ACCIDENTS AND INJURIES RELATED TO TRAIN LENGTHS.

One of the dangers to both railroad employees and the public in train operations is slack action. Slack is the "play" or movement between cars. Slack action is the accumulated effect of that movement throughout the train in train operation. The total slack between two cars averages approximately seven and one-half inches. Slack is necessary because a rigid train could not turn curves, go over hills or through dips, and because locomotives could not start a rigid train of considerable length. Each additional car in a train increases the slack in the train by approximately seven and one-half inches.

The air-brake instructions printed and published by the Appellant and those printed and published by the Atchison, Topeka & Santa Fe are in evidence. Excerpts from these instructions are printed in the record [R. 3445-3461]. These instructions definitely recognize the danger in train operations from slack action and definitely recognize that those dangers *increase as the number of cars in a train increases*. We quote from these (emphasis ours):

“Smooth train handling depends on the ability to control the slack and how to prevent it from running in or out harshly. Where so controlled, no draft gear in fair to good condition will be damaged. Slack

action cannot be prevented, but by acquiring knowledge of the various causes for it, and exercising forethought in the use of steam, train brakes, independent engine brake and sand it can be controlled, even to the extent of avoiding further injury to damaged draft gear. The heavier the engine and the longer the train the greater is the care required.

"When slack runs in or out one part of the train gradually attains a lower speed than the other and the shock is the result of draft gears having suddenly to make the speed uniform on the instant slack is all in or out. How heavy the shock will be depends mainly on the difference in speed that must instantly be made uniform and on the weight that must suddenly be altered in speed." [Ex. 319, S. P. Air Brake Book, pp. 8-9; R. 3454. Ex. 152, Santa Fe Green Book, pp. 32-33; R. 3452.]

"At how low speeds brakes can be released without liability of damages depends on how heavily they are applied, the amount of main reservoir pressure, the length of train, whether slack is in or out, lightly or heavily, and on whether track conditions (sags, humps and curves) favor releasing. Engineers must exercise judgment in this, but taking all chances on the side of stopping." [Ex. 152, Green Book, p. 35; R. 1099.]

"Shocks are caused by the difference in holding power and speed throughout the train and to consequent running of the slack. The longer the train the greater may these differences become." [R. 3447. Ex. 152, Santa Fe Green Book, p. 17; R. 1099.]

"It follows from the foregoing that the nearer brakes are applied to full service application the more

promptly will they commence to release. Also that as a light reduction results in less excess, it is more liable to be followed by brakes failing to release. Where made from standard pressure it is also likely to be followed by overcharging in the attempt to insure release. *This becomes more pronounced the longer the train.* Therefore, it is undesirable as a general rule to attempt a release following a light reduction from standard pressure." [Ex. 152, Santa Fe Green Book, p. 28; R. 3447.]

"The difference in grade over which the train may be passing when the brakes are applied—for example, one portion of the train may be on an ascending grade; when the grade would assist the brake in stopping the cars; and another portion of the train may be on a descending grade, in which case the grade would oppose the effort of the brake to stop the cars. Such a condition requires care and judgment on the part of the engineman as regards the time and manner of operating the brake to prevent as far as possible severe shocks and strains due to the action of the slack in the train." [Ex. 152, Santa Fe Green Book, p. 16; R. 3446.]

"Shocks are caused by the difference in holding power and speed throughout the train and to consequent running of the slack." *The longer the train the greater may these differences become.* If the brakes are applied while the slack is stretched it will run toward the engine and the lower the speed and the heavier the application, the greater will be the shock, while if the brakes are released on a moving train the slack will run out unless some means is at hand for preventing it (see "ET Equipment" and "K Triple Valve") and will result in pulling strains on the draft

gear which will be aggravated by low speed and heavy brake pipe reduction. Parts of the train being on different *grades at the same time*, and car loading are among the causes for one portion of the train slowing down more rapidly than another. These are conditions that have to be met, and enginemen and trainmen are expected to understand them and exercise such judgment as will prevent damaging shocks." [Ex. 152, Santa Fe Green Book, p. 16; R. 3446.]

While these instructions refer to damage to equipment, certainly a shock sufficient to damage equipment would be dangerous to persons riding thereon—and very apt to "damage" such persons.

"Smooth train handling depends upon the ability to control the slack * * *. The heavier the engine and *the longer the train* the greater is the care required." "Shocks are caused by the difference in holding power and speed throughout the train and to consequent running of the slack. *The longer the train* the greater may these differences become." These statements definitely and distinctly recognize the danger from slack action in train operations and that this danger increases with the increase in the length of the train. The longer the train, the greater may be the differences in holding power and speed throughout the train, and the consequent running of slack, *and the greater the shock*. The longer the train the greater the care required because the greater the difficulty in controlling the slack—and so the greater the danger. These railroads in their instructions to their employees are calling attention to and warning the employees with respect to the very dangers against which the purpose of the Train Limit Law is to protect.

While it may be true that only 6% of *all* casualties to *all* employees on duty in *all* classes of service are due to slack action, it must be remembered that: 1. *All casualties*, of course, includes sand in the eye, pinched finger, accidents while the train is standing, and the like. 2. *All classes of service* includes *passenger* trains, yard operations and the like. Of course, it is clear from the record that by far the greater number of these accidents occur in road freight train operations. And, finally, all employees *excludes* accidents to the *public* caused by slack action. When these factors are considered, the percentage shown has little significance.

The existence of these dangers from slack action is definitely and conclusively shown by the evidence. The trial court found that slack action accidents are "of comparatively infrequent occurrence," and a minor factor in determining the validity of the Train Limit Law. The fallacy of this is seen from the following facts taken from exhibits placed in evidence by the Appellant.

Exhibits 274 and 275 [R. 3351 and 3364] give the details of *all* casualties to *all* classes of *employees* on duty sustained in train and train service accidents, road freight train operations reportable to the Interstate Commerce Commission, years 1923 to 1939, inclusive, in the states of Arizona and Nevada, respectively.

For Nevada this detail for the twelve years shown, 1929 to 1940, inclusive, appears in the Record at pages 3367 to 3370, inclusive. From this detail it will be seen that during this period there were in Nevada 121 train and train service accidents to such employees with 134 casualties. Forty-eight, or 39.6%, of the 121 accidents were *slack action* accidents, and 61, or 45.7%, of the 134 casual-

ties occurred in *slack action accidents*. That is, approximately *two out of every five* accidents during the period were *slack action accidents*. Twenty-seven of the 121 accidents occurred while the trains were standing and one was sand or a particle in the eye. These 28 accidents could have no possible relation to the length of the train. Slack action can occur only when a train is in motion, and should be considered only in relation to accidents which occur while a train is in motion. Eliminating the standing and sand in the eye accident, there were in Nevada during this period, 93 train and train service accidents, to employees on duty, on trains *in motion*, with 106 casualties. Forty-eight, or 51.6%, of such accidents, and 61, or 57.5%, of the casualties on trains *in motion* were from *slack action*. In other words, the train and train service accidents on trains *in motion* to employees on duty resulting from *slack action* were greater than *from all other causes combined*. It can hardly be said, then, that slack action accidents are "of comparatively infrequent occurrence" or are "a minor factor."

In Arizona during the same period [R. 3356 to 3363, incl.] there was a total of 281 train and train service accidents to employees on duty, with 290 casualties. Of this total, 103 of the accidents were on standing trains and 15 were sand or a particle in the eye. On trains *in motion* there were 163 train and train service accidents to employees on duty, with 172 casualties. Of these 55, or 33.7%, of the accidents and 62, or 36%, of the casualties were from *slack action*.

In the two states there was a total of 256 train and train service accidents on trains *in motion*, employees on duty, and a total of 278 casualties. One hundred and three, or 40%, of these accidents, and 123, or 44%, of

the casualties were the result of slack action. Certainly then such accidents constitute more than a minor factor in considering safety.

These exhibits show conclusively that the frequency of slack action accidents and the severity of resulting injuries are directly related to the number of cars in a train.

(b) SLACK ACTION ACCIDENTS ARE DIRECTLY RELATED TO THE NUMBER OF CARS IN A TRAIN.

In our discussion of slack action accidents we are not to be understood as contending that such accidents do not occur on trains with less than 70 cars. They can, and sometimes do, occur on trains of 40, 30, 20 or even less cars. But slack action accidents on these short trains are unusual. The amount of the slack in these trains is such that it can usually be controlled or, even if not controlled, there is not enough slack in the train to cause a shock sufficient to bring about an accident. But as cars are added, adding slack to the train, both the difficulty in controlling the slack and the severity of the shock resulting from slack action increase. As we have pointed out heretofore, both the Appellant, Southern Pacific Company, and Atchison, Topeka and Santa Fe Railroad Company in their air brake instruction books warn employees that as the length of the train increases greater care is required to handle the slack. In other words, as the length of the train increases, the difficulty in handling slack increases—and so the probability of and danger from slack action increases. The Train Limit Law in its relation to "slack" action is based upon this very proposition (stated by the railroads themselves) that as the length of the train increases the care required to control the slack increases (and therefore the

danger from slack action) but says that with over seventy cars in the train the care required becomes too great for safe operation. It is based upon the railroads' own statement of a fact. The soundness of it is borne out by the following facts taken from exhibits 274 and 275 [R. 3356-3363, 3367-3370, all inclusive] and for the same period just considered.

In Nevada for the period 1929-1940, inclusive, there were 48 slack action accidents. Forty-seven were on trains of over 70 cars. Only *one* was on a train of 70 cars or under, a 69-car train.

In Arizona, where the 70 car limit applied, during the same period there were 55 slack action accidents. One was on a train of over 70 cars. Forty-two were on trains of 65 cars or over. Only 13 were on trains of less than 65 cars.

In the two states combined there were 103 slack action accidents. Forty-eight were on trains of over 70 cars. Ninety, or 87%, were on trains of 65 cars or more. There can hardly be any doubt from these figures that as the length of a train increases, the care required, and the difficulty, in handling slack becomes so great that a real hazard from slack action accidents arises and a rational reason exists for limiting the number of cars in a train.

(c) THE SEVERITY OF INJURIES RESULTING FROM SLACK ACTION HAVE A DIRECT RELATION TO THE NUMBER OF CARS IN A TRAIN.

These same exhibits show a further sound and rational basis for the train limit law—the increased severity of the injuries received from slack action accidents as the number of cars in the train increases.

In Nevada during this period there were, as we have stated, 48 slack action accidents with 61 casualties. Forty-seven of the accidents and 60 of the casualties were on trains of *over 70 cars*. One was on a train of 69 cars. Two of the 60 men injured on the trains over 70 cars were *permanently* injured. The other 58 had a total disability of 2830 days, or an average disability of 48.8 days. The one man injured on the 69 car train was disabled for 20 days.

In Arizona there were 55 slack action accidents with 62 casualties. One accident and two casualties were on a train of over 70 cars, one man being *permanently* disabled and the other disabled for 80 days. In the other 54 accidents (42 being on trains of 65 or more cars) 60 men were injured, one *permanently* (on a 68 car train), the other 59 having a total disability of 1373 days, or an average disability of 23.3 days.

For both states combined there were:

On trains of *over 70 cars*:

48 slack action accidents

62 casualties with 3 *permanently* disabled and the other 59 having an aggregate disability of 2910 days, and an average of 49.3 days.

On trains of 70 cars or less:

55 slack action accidents (42 on trains of 65 cars or more)

61 casualties with one *permanently* disabled (on a 68 car train), and the other 60 having an aggregate disability of 1393 days and an average of 23.2 days.

Three were permanently injured on long trains against one on trains of 70 cars or less (and the one was on a 68 car train).

Where the disability was not permanent, the period of disability of those injured on long trains was more than twice that of those injured on trains of 70 cars or less. Certainly this shows that the probability of permanent or serious injury is greater on trains of over 70 cars. Surely this is a rational basis for limit the length of a train to 70 cars.

(d) THE DANGER TO THE PUBLIC FROM SLACK ACTION HAS A DIRECT RELATION TO THE NUMBER OF CARS IN A TRAIN.

We have heretofore discussed only the danger from slack action to railroad employees on duty. Slack action on long trains also presents a real danger to the traveling public, especially in parallel-track territory or in yards where passenger trains are passed. As the length of the train increases, the amount of slack, with the weight of the train, develops slack action of sufficient force to buckle a car, throwing it out of the train onto and fouling parallel track. If a passenger train is approaching on the parallel track a wreck with death and injury to passengers and employees results. The Interstate Commerce Commission report of an accident on the Pennsylvania Railroad on March 27, 1936, near Manor, Pa. [Ex. 311; R. 3329, item 45, Ex. 270] describes such an accident.

As the 101 car freight train westbound was approaching Manor a refrigerator car was buckled out of the middle of the train, due to severe slack action, fouling the adjacent track directly in front of an approaching eastbound passenger train, wrecking the passenger train. Three persons were killed and eleven were injured.

Considerable force is required to buckle a car and throw it out of a train. This type of accident demonstrates the tremendous force and shock developed by the slack and weight of a long train.

"Shocks are caused by the difference in holding power and speed throughout the train and to the consequent running of slack. *The longer the train the greater may these differences become.*" (Emphasis ours.) [R. 3446, Santa Fe Green Book.]

"The critical time in regard to train damage from brake applications is while slack is running in or out, as trains are not pulled in two, or buckled from steady pulling or pushing strains * * *" (Emphasis ours.) [R. 2287, S. P. Air Brake Instructions, page 12, Ex. 319.]

"When slack runs in or out one part of the train gradually attains a lower speed than the other and the shock is the result of draft gears having suddenly to make the speed uniform on the instant slack is all in or out. *How heavy the shock will be depends mainly on the difference in speed that must instantly be made uniform and on the weight that must suddenly be altered in speed.*" (Emphasis ours.) [R. 3454, S. P. Air Brake Instructions.]

The danger from cars being thrown on parallel tracks due to slack-action buckling cars in long trains is recognized by the Director of Safety of the Interstate Commerce Commission in his report of an accident on the Western Maryland Railway at Oldtown, Maryland, February 9, 1937, where it is stated [Ex. 311, R. 2213, page 15 of report]:

"The break-in-two and consequent buckling of long trains, such as twice occurred in this train, is a

hazard which *calls for remedial action* on any line, but the hazard to life and property is *greatly increased* when such defective cars are hauled on double or multiple-track lines with trains travelling on adjacent parallel tracks." (Emphasis ours.)

In this accident the slack action was the result of a break-in-two due to a low coupler. But we submit that the severity of the slack action, sufficient to buckle a car, was due to the length of the train. (162 cars.)

That this danger from cars buckled and thrown out of a train due to slack action is one incident and peculiar to long trains is shown as a fact by Exhibit 270 [R 3310] introduced in evidence by the Appellant.

Exhibit 270 is a tabulation of data shown in summaries of the accident investigation reports of the Interstate Commerce Commission, years 1928 to 1939, inclusive, in so far as the reports relate to accidents involving freight trains, including mixed trains handling freight cars. During the 12 year period a total of 561 such accidents are shown as investigated by the I. C. C. The 33 accidents shown in Class III and 95 of the 100 accidents shown in Class IV, or a total of 128 accidents, have no relation whatever to train lengths.

For example, the accidents shown in Class III were due to collapsed bridges, broken rails, defective switches, poor track and the like. Ninety-five of the 100 accidents shown in Class IV were caused by wash-outs, rocks or other objects on the track, switches or tracks being tampered with, land slides and the like. In these accidents there can be no possible relation between the cause of the accident and the length of the train involved. In five

of the accidents in Class IV (items 36, 45, 47, 72 and 75) the cause or contributing cause was the slack action in the train. Four were on trains of over 70 cars.

In 349 of the accidents (Class I) negligence of employees is shown as the cause of the accident. (In passing we note that *only one* of these latter occurred in Arizona where the Train Limit Law was in effect—item 142 R. 3321, "Failure to operate under proper control within yard limits." A. T. & S. F. R. Co., Kingman, Arizona, November, 1936, R. 3333, Investigation Report No. 2117. More will be said about this later in our brief. Eighty-four of the total of 561 accidents were due to causes other than negligence of employees—collapsed bridges, defective tracks, washouts and the like. Of these 84 accidents, 25 were caused by the failure of arch bar trucks, a type of truck not now permitted in interchange [Ex. 304, p. 22, rule 3). They were due entirely to the type of truck used and had no relation to train length. Of the remaining 59 accidents, 3 were caused by cars *buckled and thrown out of the train fouling adjacent tracks in front of approaching passenger trains* killing 4 and injuring 42. These three accidents are shown on the exhibit as follows:

Record p.	I.C.C. Rep. No.	Killed	Injured
3326	1575	1	25
3329	2055	3	11
3330	2316	—	6

The second of these accidents is one at Manor, Pa., referred to heretofore: *All 3 of these accidents were on trains with over 70 cars. No such accident is shown on a train of 70 cars or less.*

A rational basis in safety in the enactment of the Arizona Train Limit Law is shown by the record in the protection of both the public and the employees from the dangers incident to slack action.

(c) STRAINS ON WEAK PARTS INCREASE IN QUANTITY AND QUALITY AS EACH CAR IS ADDED (ACCIDENTS DUE TO FAILURE OF EQUIPMENT).

The average weight of an empty freight car is 27 tons and of a loaded freight car 45 tons [Ex. 2, R. 2852]. Every car added to a train adds from 27 to 45 tons to the pull on the draft gear, drawbars, couplings, knuckles, etc., of the cars ahead. If ten cars are added, the added weight to be pulled is from 270 to 450 tons. This pull is exerted whenever the slack is stretched as by the engine in starting or pulling up a grade, or the rear cars pulling back on up grade. The force and quantity of the pull increases as the length of the train increases, because the greater the length of the train the more weight and slack, and the greater the speed that the engine and head cars may attain before the rear cars begin to move.

In starting a long heavy train the slack is first bunched, then each car is started as the slack is pulled out. The longer the train the *greater the speed* the head end will attain before the rear cars begin to move.

"How heavy the shock will be depends mainly on the difference in speed that must instantly be made uniform and on the weight that must suddenly be altered in speed." [Santa Fe Green Book, Ex. 152; R. 3452.]

Likewise, with each car added there is an additional 27 to 45 tons to *run in* on the cars ahead when the slack

runs in, as on a down grade, in stopping, backing up or in any operation where the slack is bunched. This added weight and strain may be enough to break or injure draft gear, drawbars, couplings, etc., or where already defective, to cause it to break and cause an accident.

There is *no* evidence in the record from which a comparison of accidents on short and long trains from defects or failure of equipment, per train operated, can be made. There are exhibits showing accidents due to such defects or failure during certain periods. Exhibit 270 shows that of the 79 accidents from this cause involving 90 trains investigated by the I.C.C. during the 12 year period 39 of the trains were over 70 cars and 51 were 70 cars or less. But it does not show, nor does the record anywhere show, the total number of short trains or the total number of long trains operated.

Exhibit 270 covers the period 1928 to 1939, inclusive. Exhibit 22 [R. 2870] shows the average cars per freight train for Class I railroads during this period as follows:

Year	1928	1930	1932	1934	1936	1938	1939
Av. cars	48.1	48.9	44.8	46.2	46.4	47.7	49.1

It will be seen from this that the average cars per freight train operated on all Class I railroads during the period was from 20.1 to 25.2 *below* the limit under the Train Limit Law. To accomplish these averages it would seem probable that *at least 10 short trains* were operated to one long train. Certainly this must be true when it is considered that in Arizona, *where practically every train operated was a short train*, the lowest average cars per train for the same years was 52.04 (1928) [Ex. 149, R. 3025], 3.01 more cars per train than the highest average cars per train on Class I railroads for the years shown.

With at least 10 short trains operated to every one long train, this type of accident on short trains per train operated then would be small compared to long trains, and the percentages shown at the bottom of page 3311 of the Record are meaningless.

There is, however, evidence in the record from which a comparison can be made of the severity of this type of accident and the resulting casualties, on long and short trains.

Exhibit 270 [R. 3311] shows that of the 90 trains involved in this type of accident 51 or 56.7% were short trains and 39 or 43.3% were long trains. There was a total of 426 casualties in the 79 accidents. Three hundred and eighteen of these casualties were in accidents in which the 39 long trains were involved, or an average of 8.2 casualty per train. One hundred and eight of the casualties were in the accidents in which the 51 short trains were involved, or 2.1 casualty per train. In other words, the casualties per train where trains of over 70 cars were involved was nearly four times that per train where trains of 70 cars or less were involved. This again shows trains of over 70 cars present a greater hazard and a rational basis for the enactment of the Arizona Train Limit Law.

(f) INCREASE IN DIFFICULTY OF COMMUNICATIONS BETWEEN EMPLOYEES AS THE LENGTH OF THE TRAIN INCREASES.

Communications between employees on different parts of a freight train is by hand signals during the day and by use of lights at night. It is obvious as the distance between the employees increases the more difficult it will be to see and interpret these signals. Exhibit 118 [R. 2978] is a picture of a train with 150 cars operated on the Chesapeake & Ohio Railroad. It is improbable that the

men on the engine of that train can even see a man on the caboose, let alone see and interpret signals.

When a train is in motion men are on top of the train only in case of emergency, and signals ordinarily would be passed direct from the rear to the head. The dangers to men on top of a train in motion are well known, and were recognized in the adoption by Congress of the air-brake provision of the Safety Appliance Act.

Virginian R.R. Co. v. U. S., 223 U. S. 748.

An instance where the ability to give a "stop" signal is important is where a hot box is noted by the trainmen in the caboose [see rule 16, p. 28; Ex. 319; R. 2287]. An instance where the ability to give a "reduce speed" signal is important is where an engineman fails to observe a slow board and is moving at a dangerous speed. In either of these instances, if the length of the train is such that a hand signal cannot be seen, the conductor must either send a man over the top of the train, if time permits, or stop the train by the use of the conductor's valve in the caboose. Either method adopted would create a danger.

(g) THE ABILITY TO OBSERVE DEFECTS IN THE TRAIN DECREASES AS THE LENGTH OF THE TRAIN INCREASES.

While a train is in motion it is the duty of the trainmen to watch and observe the train, from the caboose and the runway of the engine, for the purpose of detecting any defects that might arise—such as hot boxes, broken wheels and the like—in order that the train may be stopped in time to prevent an accident. The serious consequences of a failure to detect a defect in a train is seen in the report

of the accident on the Rock Island at La Salle, Illinois, March 6, 1936 [Ex. 311; R. 2213]. There, for something over a mile, the crew failed to detect a *derailed* truck, which finally resulted in the car under which the derailed truck was located, and several other cars, derailling and fouling the adjacent track, wrecking a train moving on that track. Four were injured. In that case the failure to detect the defect—the derailed truck—was due to smoke following along the train after coming through a tunnel. But the length of the train can also prevent the crew from observing such a defect. With cars averaging 45 feet in length, each car would add 45 feet to the length of the train. The more cars there are in a train, the farther the trainmen will be from any defect which may develop in the middle of the train. It is just plain common sense that the further one is away from an object the more difficult it is to see and detect such object.

On pages 3324 and 3325 of the Record appears a tabulation of data from summaries of Interstate Commerce Commission investigation reports of freight train accidents caused by defective equipment, years 1928 to 1939. There are a total of 79 accidents. Twenty-five of those listed under "Trucks" on page 3324 are shown as caused by broken arch bars. These accidents were due entirely to the type of truck used—a type *no longer permitted* in interchange—and can have no relation to train lengths. The remaining 54 accidents involved 60 trains with a total of 344 casualties. Thirty-three of the trains were over 70 cars and in these there were 214 casualties. These accidents were, for the most part, caused by broken wheels, broken journals, defective couplings, and the like.

It is only reasonable to expect that had some of those long trains been shorter the trainmen might have discovered the defect in time to stop the train and prevent the accidents—and preventing many casualties.

(h) FEAR OF INJURY REDUCES THE EFFICIENCY OF
TRAINMEN.

Witnesses for the Appellee testified to the fear of injury which increases with the increase in train lengths [R. 2546, 2563]. That this fear is not fanciful is seen from the facts, hereinbefore pointed out, that in Arizona and Nevada for the 12 year period 1929 to 1940, inclusive, there were 48 slack action accidents on trains of *over 70 cars* with *62 casualties, 3 permanently injured* and the other 59 with an *aggregate disability of 2910 days*, while on the trains of 70 cars or less there were 55 slack accidents with *61 casualties, one permanently disabled (on a train of 68 cars) and an aggregate disability of 1393 days for the other 60*. In other words, on long trains 3 were permanently disabled to *one* on the short trains, and the average disability of those not permanently disabled was *more than twice* as great on long trains as on short trains. And we call attention to the report of the investigation by the Interstate Commerce Commission of the accident on Appellant's lines at Reno, Nevada, November 19, 1938 [Ex. 304], where *five men* were sent to the hospital by an accident due to slack action on an 85 car train, and to the accident on Appellant's lines in Yuma, Arizona, October 21, 1937 [item 466, R. p. 3361], where one man was *permanently injured* and another disabled for 80 days when the slack ran in on a train with 122 cars. Men working under conditions which cause strain and fear of injury cannot be as efficient as men working where such conditions do not exist.

(i) LONG TRAINS WILL NOT REDUCE THE CASUALTIES
DUE TO NEGLIGENCE OF EMPLOYEES.

The Appellant argued below that accidents caused by negligence of employees have a relation to train lengths because shorter trains require more employees and present more opportunities for accidents from this cause. The record does not bear out the contention that more accidents result from this cause with shorter trains.

The cars per freight train as shown by Exhibit 22, and the number of accidents investigated by the Bureau of Safety caused by the negligence of employees, all Class I railroads, years 1928, 1930, 1932, 1934, 1936, 1938, 1939 are as follows [Ex. 22 and 270; R. 2870, 3310]:

	1928	1930	1932	1934	1936	1938	1939
Cars per							
Train	48.1	48.9	44.8	46.2	46.4	47.7	49.1
Accidents	23	34	24	23	32	28	33

It will be seen that there was an increase in cars per train, 1930 over 1928, of .8 cars and also an increase of eleven accidents caused by negligence of employees; for 1932 over 1930 a decrease of 4.1 cars per train, and a decrease of ten accidents caused by negligence of employees; for 1936 over 1934 an increase of .2 cars per train and an increase of nine such accidents; for 1938 over 1936 an increase of 1.3 cars per train and a decrease of four such accidents; and for 1939 over 1938 an increase of 1.4 cars per train and an increase of 5 such accidents.

Somewhat similar results will be found if accidents caused by negligence of employees shown on Exhibit 270 [R. 3310] and the man-hours shown on Exhibit 262 [R. 3300] for the different years are compared. For ex-

ample, in 1928 the man-hours worked were 4,200,547,000 and the accidents from this cause investigated by the Bureau numbered 23, or 5.47 accidents per billion man-hours; in 1929 the man-hours worked were 4,234,000 and the accidents from this cause investigated were 58, or 13.69 accidents per billion man-hours; and in 1937 the man-hours worked were 2,646,909,000 and the accidents from this cause investigated were 41, or 15.5 accidents per billion man-hours. In other words, with approximately the same man-hours worked in 1928 and 1939, the accidents from this cause investigated in 1929 were more than twice as great per billion man-hours as those in 1928; and in 1937 with approximately one-third less man-hours worked the accidents from this cause investigated were nearly three times as great as in 1928 and greater than in 1929. This certainly refutes the contention of Appellant that short trains, by increasing the number of employees and the man-hours worked, increase the number of accidents caused by negligence of employees and thus increase hazards.

The Appellant has pointed out that 349 accidents are shown as caused by negligence of employees, with 499 freight trains involved, and that 409, or 82%, were short trains, and 90, or 18%, long trains. Appellant then argues that this shows long train operations to be safer. The argument is erroneous because, first, as we have pointed out above, when the accidents are considered by years it is apparent that there is no relation between this type of accident and the length of trains operated or man-hours worked; and, second, as we have heretofore pointed out, the average cars per freight train operated during this period was from 20.1 to 25.04 cars per train less than the 70 cars permitted under the Train Limit Law (see p. 107,

of this brief) and thus *at least 10 short trains* must have been operated to one long train. With 10 short trains operated to one long train, this showing of only 4 short trains involved in these accidents to one long train is certainly *favorable* to short train operation. There is nothing to show the train miles, car miles or man-hours accumulated in short and long train operations respectively during the period; and so no accurate basis for comparing this type of accident in the two operations.

And we point out that *only one* of these 349 accidents and *none* of 112 accidents of the same type involving passenger trains [R. 3336] occurred in Arizona, where the number of cars in a train is limited. All the other 460 such accidents occurred in territory where, Appellant contends, long train operation is the normal practice. Certainly this does not show that the limitation on the number of cars per train brings about more accidents due to negligence of employees. In fact, it shows just the contrary.

The *one* accident in Arizona due to negligence of employees during the 12 year period involved two trains of from 61 to 70 cars. The cause of the accident is shown as "Failure to operate under proper control within yard limits" [Item 142, R. 3321; I.C.C. Inv. No. 2117, R. 3333].

(j) GRADE CROSSING ACCIDENTS.

The appellant contends that the Train Limit Law increases the hazard of grade crossing accidents because short trains will require more trains and increase the opportunity for such accidents. The evidence does not support this contention, in fact is to the contrary.

The two principle factors in relation to the question of opportunity for grade crossing accidents are the time

the crossing is occupied by trains and the number of automobiles using the crossing.

The length of the trains operated will have little effect upon the opportunity for accidents. There are just so many cars to be moved across a given crossing and, if the speed of the trains are the same, those cars will occupy the crossing for exactly the same period of time regardless of whether they are in a long train or a short train. With short trains there may be a few more engines and cabooses. But the additional time these engines and cabooses would occupy the crossing will, in all probability, be more than offset by the faster speed of the short trains.

Crossing accidents generally are of two types: those where the train and the automobile run into each other, and those where the automobile runs into the side of the train.

The first type of accident is usually the result of the driver of the automobile trying to beat the train over the crossing. There is a greater danger of this type of accident in long train than in short train operations. In many of these situations the engineer may become aware of the danger and slow down or stop the train. Because of the weight of the train it is more difficult and takes longer to slow down or stop a long train. There is then in long train operations less chance on the part of the engineer to prevent the accident. Also the engineer is fully aware that the large amount of slack in a long train may damage the train and injure employees if the brakes are applied with the slack stretched [R. 3454, 5 P. Co. Air-brake instructions], and will hesitate and delay longer before applying the brakes.

The second type of these accidents are more apt to occur at night and the length of the train can be an im-

portant factor. With the middle of a long train occupying the crossing the lights of the engine and the caboose will be so far away on either side of the crossing as to be impossible to be seen by an approaching automobile. These lights are so far away that they are not observed by the driver of the automobile and he comes up to the crossing without warning that it is occupied by the train. With short trains the probabilities are greater that the engine or caboose lights will be seen by and will warn the driver of the automobile and prevent an accident.

From the exhibits introduced in evidence it will also be seen that short trains do *not* increase grade crossing accidents.

Exhibit 268 [R. 3306] shows the casualties, and the casualty rate per million train miles and per 10,000 automobiles registered, grade crossing accidents in which automobiles were involved, all steam railroads in the United States, 1923 to 1938, inclusive. The exhibit shows that casualties declined in absolute number and in proportion to the number of automobiles registered, during the period 1923-1939.

The only evidence in the record as to a casualty rate in grade crossing accidents, other than the rate per 10,000 automobiles registered, is the per million train mile basis shown in this Exhibit 268. This certainly does not sustain a finding that grade crossing accidents increase in proportion with the number of trains using the crossing. On the contrary, it shows that the casualty rate per train mile has remained relatively constant. If we were to consider only the length of trains operated over the period we would find [Exhibit 22, R. 2870] that the average cars per train increased from 1923 to 1930, then decreased until 1934.

when they again began to increase. And we would also find [Exhibit 268, R. 3306] that the grade crossing casualty rate per million train miles varied somewhat the same.

By Exhibit 293 [R. 3422] appellant showed by years for the period 1923-1938, inclusive, the number of grade crossing accidents and casualties on the Southern Pacific Company lines and on all railroads in Arizona, and the casualty rate per 10,000 automobiles registered for Arizona and for the entire United States. The comparison of the rate per 10,000 automobiles registered, Arizona with the United States as a whole, will be found favorable to the appellee. While the average rate for the entire period is not shown, by totaling the casualties in Arizona and the automobiles registered, it will be found to be 2.39 in Arizona as against 2.77 per 10,000 registered automobiles for the entire United States.

Exhibits 200 [R. 3149] and 201 [R. 3150] show the number of grade crossings on appellant's lines in Arizona and in Nevada, respectively, in each of the years 1930 to 1939 inclusive. The exhibits show that for each of the years there were more than *three times* as many grade crossings on appellant's lines in Arizona than on appellant's lines in Nevada. For example, in the year 1939 in Arizona there were 654, while in Nevada there were 211.

Exhibit 334 [R. 3461] gives a comparison of grade crossing accidents per 10,000 automobiles registered involving automobiles 1929-1939, inclusive, states of Arizona, Nevada and New Mexico. Exhibit 335 [R. 3462] is a similar comparison of all grade crossing accidents for these states in those years. The basis used in these ex-

hibits is the identical basis used by the appellant in Exhibits 268 and 293. The data was taken from tables in the reports of the Interstate Commerce Commission, showing that the Commission considers such basis as a proper yardstick for measuring this type of accident.

Exhibit 334 [R. 3461] shows the casualty rate per 10,000 registered automobile grade crossing accidents involving automobiles as follows: Arizona 1.13, New Mexico 1.22, Nevada 1.29.

And Exhibit 335 [R. 3462]—all grade crossing accidents: Arizona 1.23, New Mexico 1.35, Nevada 1.6.

And this notwithstanding that, on appellant's lines, there were *three times* as many grade crossings in Arizona as in Nevada.

It appears from the trial court's finding that the trial court assumed as a fact that an increase in the number of trains operated over a grade crossing necessarily increases the hazard and the probability of an accident at such crossing. There is absolutely no basis for such an assumption and we deny that such is the fact. On the contrary, a more frequent operation of trains over a grade crossing creates a greater awareness on the part of drivers of motor vehicles that trains may be passing over such crossing, a greater alertness in approaching such crossing, greater caution and care. It is at crossings over which trains pass only infrequently that the greatest hazards exist by reason of the fact that the driver of the motor vehicle, forgetting, because of the infrequency of the trains, that trains pass over the crossing, becomes careless in approaching the crossing.

(k) INTERSTATE COMMERCE COMMISSION SERVICE ORDER
No 85.

At several places in its brief the Appellant has referred to Service Order No. 85 issued by the Interstate Commerce Commission effective September 15, 1942. This order is set out at page 1 of the Appendix to this brief. The Commission states that the order was issued under the authority of sub-sections (10)-(17) of section 1 of the Interstate Commerce Act (49 U.S.C. 1 (10)-(17)).

Neither the validity of Service Order No. 85 nor the authority of the Interstate Commerce Commission under sub-sections (10)-(17), section 1 of the Interstate Commerce Act are before this Court in this appeal. The authority of the Interstate Commerce Commission under these provisions of the Interstate Commerce Act was not brought in question in the trial court. Consequently no opportunity has been given to the Appellee to make a record upon which the Appellee's contention on this question could be presented. The judgment was filed in the trial court February 11, 1942 [R. 4039]. Service Order No. 85 was not issued until approximately seven months thereafter. While some argument with respect to the validity of Service Order No. 85 was presented in the briefs in the State Supreme Court, upon oral argument before the court it was recognized that, upon the record before the Court and in the absence of the Interstate Commerce Commission as a party, the question could not be considered or determined. The majority opinion in the State Supreme Court gives no consideration to these provisions of the Interstate Commerce Act nor to Service Order, No. 85. The dissenting opinion of Judge Ross refers to the decision of the Interstate Commerce Commission in *Ex Parte*

No. 156 issued November 8, 1943, approximately seven months after the argument in the State Supreme Court. (The case was argued in the state court April 12-13, 1943.) No assignment of error herein brings in question the validity of Service Order No. 85 nor the authority of the Interstate Commerce Commission under sub-sections (10)-(17), section 1 of the Interstate Commerce Act.

This statement is made so that the limited purposes for which reference is made to Service Order No. 58 may be clearly understood, and not in reply to any contentions by the Appellant in its brief. The Appellant, in fact, has presented no argument with respect to either the validity of Service Order No. 85 nor the authority of the Interstate Commerce Commission under sub-sections (10)-(17), section 1 of the Interstate Commerce Act, and seemingly agrees that those questions are not presented in this appeal.

The references in Appellant's brief to Service Order No. 85 are in connection with the contention that this order indicates a belief on the part of the Interstate Commerce Commission, and is a declaration by that Commission, that state train limit laws are unnecessary, and unreasonably burden interstate commerce. We do not believe the order supports this interpretation. The order in part provides:

"This order, being based upon conditions of war emergency, shall not constitute a precedent for peacetime operations."

The Commission very carefully and specifically points out that the suspension of the train limit laws is based "upon conditions of war emergency". During the war they are to give way to this greatest of public concern, the war emergency. And the Commission then carefully and specifically provides that the order "shall not consti-

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tute a precedent for peacetime operations". This, we submit, indicates a belief on the part of the Commission that these train limit laws are proper and reasonable in normal peacetime operations and are only suspended because winning the war is a matter of greater public welfare.

In this connection it will be noted that mere temporary suspension of the operation of a state statute by the intervention of federal authority will not permanently oust the state of its right of regulation, and such regulation may be resumed by the state without reenactment of its statute when the effective period of the federal regulation has ended.

Missouri Pac. R. Co. v. Boone, 270 U. S. 466, 468.

C. The Appellant's Safety Evidence.

(a) THE NATIONAL EVIDENCE.

The Appellant's safety evidence consisted almost entirely of exhibits based upon accidents and casualties reported by the various Class I railroads to the Interstate Commerce Commission. These begin with Exhibit 262 [R. 3300] and for the most part cover the period 1923 to 1940, inclusive. Accidents and casualties on Class I railroads are classified under these exhibits (the so-called "national exhibits") as accidents and casualties, (1) to all classes of employees in all classes of service [Ex. 262, R. 3300]; (2) to road trainmen and engineers on duty in all classes of service [Ex. 263, R. 3301]; (3) to road freight trainmen and engineers on duty [Ex. 264, R. 3302]; (4) to road freight conductors, brakemen and flagmen on duty [Ex. 265, R. 3303]; (5) to road freight conductors, brakemen and flagmen on duty caused by slack action

[Ex. 266, R. 3304]; (6) to passengers [Ex. 267, R. 3305]; (7) at crossings [Ex. 268, R. 3306]; (8) classified as to cause [Ex. 269, R. 3307]; and (9), investigated by the Interstate Commerce Commission [Exs. 270, 271, R. 3310, 3336]. These exhibits have *no* evidentiary value whatsoever upon the question before the Court. It is true that they show a very substantial decrease in accidents and casualties over the period both as to train miles and car miles operated. But it is nowhere shown that this improvement is in any way due or related to the length of trains operated. On the contrary the record shows a number of other causes, in no way related to the number of cars in a train, which have brought about the improvement with respect to accidents and casualties. We call attention to some of these. In the early part of the period covered by the exhibits there were numerous accidents caused by undesired emergency application of the air-brakes due to the triple valves sticking. In the middle 20's the graduating spring in the triple valve was made heavier. This practically eliminated these accidents. In the early part of the period many accidents were caused by the failure of arch bar trucks [Ex. 270, R. 3310]. Arch bar trucks have been eliminated by the Rules of Interchange since January 1, 1941 [R. 3185]. During the period equipment has been strengthened, rails made heavier and ballast improved [R. 194, 195]; block signals have been improved; grades and curves have been eliminated and many grade crossings have been eliminated by a separation of grades. *These are the causes for the improvement in casualties and they have no relation to the length of a train.* It is pure speculation to say from this evidence what, if any, effect train lengths had or did not have on the "improvement" in casualties.

The exhibits include the combined operations of both short and long trains. There is no separation whatsoever of long and short train operations. It is therefore impossible to compare the casualties, or the rate of improvement therein, between short and long trains. So far as the evidence shows, 90% of the improvement in casualties may have been on short trains and only 10% on long trains.

The Appellant contends, however, that by a comparison with exhibits covering operations in Arizona, these exhibits do show that increased train lengths contributed to the improvement in casualties; that all the other factors affecting the improvements in casualties and accidents were present in Arizona, and if a greater improvement is shown on the national exhibits, the cause must be the operation of long trains outside of Arizona. But this contention is erroneous, because:

First, the national casualties exhibits are not comparable with the casualties exhibits as to Arizona. This is readily apparent from a consideration of the comparison Appellant seeks to make at pages 191 and 192, Volume II, of its Brief: For the purpose of comparing the improvement percentages of casualty rates as to Class 1 railroads the five-year period 1935-1939 is compared with the six-year period 1923-1928 and as to Nevada and Arizona the six-year period 1935-1940 is compared with the six-year period 1923-1928.

The first comparison is with respect to casualties to All Classes of Employees on Duty, All Classes of Service [Exs. 262, 276, R. 3300, 3371]. For Class 1 railroads the percentage of improvement shown in the comparison is on a car mile and train mile basis. For Arizona and Nevada it is on a locomotive mile basis. The basis for

percentage of improvement used as to Class I railroads is not comparable to that used as to Arizona and Nevada and the comparison is meaningless. Exhibit 262 shows the percentage of improvement as to Class I railroads based upon *locomotive miles* was 66.74%. Why this was not used by Appellant we do not know.

There is another very important reason why this comparison is valueless. The first period, 1923-1928, includes the years 1923 and 1924. In November, 1924, the E. P. & S. W. and the Arizona Eastern railroads were consolidated with the Appellant, Southern Pacific Company [Ex. 141, Note (a), R. 3017]. Before consolidation Appellant operated in Arizona 399.95 miles of main line trackage and 144.93 miles of branch line trackage, or a total of 544.88 miles of trackage. After consolidation it operated in Arizona 574.81 miles of main line trackage and 647.98 miles of branch line trackage, or a total of 1222.79 miles of trackage [Ex. 305, R. 3430]. The first period used in Appellant's comparison includes *almost two years* in which operations were on *only the 544.88 miles* of trackage operated before consolidation. But Appellant attempts to compare the casualties in the later period, 1935-1940, on 1222.79 miles of track operated with the casualties on 544.88 miles of track operated in the earlier period to determine the percentage of improvement on the 1222.79 miles of track now operated. It is like comparing present operations in Arizona with the combined Arizona-Nevada operations to determine the percentage of improvement in Arizona. It can't be done. But the Court will find that the Appellant included 1923-1924 as a part of the earlier period in making its comparisons, not only as to Exhibits 262 and 276 but as to all exhibits.

The effect of including 1923 and 1924 is shown by excluding in the Arizona-Nevada exhibit these years from the earlier period and determining the percentage of improvement. The figures for the period 1925-1928 are:

Total locomotive miles		Total Casualties		Casualties per million loco. miles	
Nevada	Arizona	Nevada	Arizona	Nevada	Arizona
18129	24019	125	327	6.89	13.61

[From Exhibit 276, R. 3371.]

For the period 1935-1940 [Ex. 276]:

21757	30970	103	273	4.73	8.81
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The percentage of improvement 1935-1940 over 1925-1928 is:

Nevada 31.35% Arizona 35.26%

On Exhibit 276 with 1923 and 1924 *included* the improvement 1935-1940 over 1923-1928 is:

Nevada 46.7% Arizona 38.7%

And this last, the percentage of improvement with 1923 and 1924, *included, is used in the comparison set out in Appellant's brief.*

The Appellant argues that this increase in miles of trackage operated cannot affect the comparison made on a train or car miles basis. That this argument is erroneous must be readily apparent. If the casualty rate per car and per train mile was substantially higher on the acquired territory than on the original territory, it would cause the per car and train mile casualty rate on the combined operation to be higher than on the original operation. A comparison of subsequent rates with those on the

original mileage will not give the rate of improvement on the original territory nor on the consolidated territory.

For further illustration we refer to Exhibit 279 [R. 3374]. This exhibit is a comparison of casualties to road freight conductors, brakemen and flagmen on duty, Arizona and Nevada, 1923 to 1940. For comparison of improvement in casualties the total period is broken up into three 6-year periods. It shows the following percentage improvement on a train mile basis in the two states:

Period	Arizona	Nevada
1929-34 over 1923-1938—decrease	37.9%	45.6%
1935-40 over 1929-1934—	20.0%	24.3%
1935-40 over 1923-1928—	50.3%	58.8%

A year and ten months of the period 1923-1928 was before consolidation. If we eliminate the years 1923 and 1924, and divide the remaining 16 years into periods of six, five and five years, the percentage of improvement on a train mile basis is as follows:

Period	Arizona	Nevada
1931-35 over 1925-1930—decrease	38.8%	33.6%
1936-40 over 1931-1935—	7.97%	15.6%
1936-40 over 1925-1930—	43.7%	43.6%

In other words, during the period since consolidation, when the territory and mileage operated in Arizona has remained substantially the same, the percentage of improvement in the two states is comparable. This shows the fallacy of including the years before consolidation. It is the same as combining two different territories to get the percentage of improvement on one.

The absurdity of such a comparison stands out in Appellant's comparison of the three-year periods 1938-40 and

1923-1925 (Appellant's Br. Vol. II, p. 178.) Over 22 months of the period 1923-1925 was before consolidation when the trackage operated was only 544.88 miles. Only 14 months was after consolidation. Yet Appellant determines the percentage of improvement on the 1222.79 miles of track now operated by comparing the experience on *this trackage* for the period 1938-1940 with the experience on 544.88 miles for 22 months and 1222.79 miles for 14 months.

In Appellant's comparison (App. Br., Vol. II, pp. 191-192) no Arizona-Nevada exhibits are shown comparable to Class I railroads Exhibits 263 and 264, and no Class I railroad exhibit is shown comparable to Arizona-Nevada Exhibit 277—and there are none.

National Exhibits 265 and 266 are represented as comparable to Arizona-Nevada Exhibits 279 and 280. There is no basis for comparison, first, because of the consolidation of the Southern Pacific Company and the E. P. & S. W. in November, 1924, referred to above and, second, because the percentage of improvement in the national exhibits is based upon car miles and train miles of *freight train and work train* operations while the Arizona-Nevada exhibits are based upon car miles and train miles of *freight train operations only*.

In columns (b) and (c), Exhibits 264, 265 and 266 [R. 3302-4], which give the national casualties, the car miles and train miles used are those for freight trains *and work trains*. In Exhibits 276, 277 and 279, which present the casualties as to Arizona, the car and train miles used are those for freight trains *only*. *Work train* car miles, train miles and casualties are *not included in the Arizona exhibits*. It is impossible to know how the failure to include

work train operations in the Arizona exhibits affects the percentage of improvement in Arizona and the comparison with the national casualties. It is shown in the record that the period 1923 to 1930 was one of reconstruction following the return of the railroads to the owners following government ownership. The average expenditures for roadway and structures was for those years approximately *three times as great* as for the following years. [Ex. 15, R. 2863.] This certainly would mean the operation of a *great many more work trains* in those years than in the later years. If the casualty rate was high in work train operations, then the reduction in work train operations *would have a material effect upon the percentage of improvement in casualties* on the national exhibit but *would not be reflected in the Arizona exhibits* because work train miles are not included in the Arizona exhibits.

Second, the comparison fails to consider, and is impossible because of, differences in local conditions affecting the casualties, such as wind and sand, differences in traffic and the like. For example, Exhibit 279 shows 32 casualties in Arizona in the year 1937, an unusually large number in comparison with other years in this third period, and materially affecting the percentage of improvement for this period. The following detail as to the casualties to employees on duty in Arizona and Nevada for the year 1937 is taken from Exhibit 274 [R. 3361] and Exhibit 275 [R. 3369A]:

ARIZONA

Item

No.

Description of Accident.

(441) Thrown against cupola steps when train was stopping.

(442) Slipped off edge of car roof to ground.

- (443) Slipped and fell on frosty car roof while releasing hand brake.
- (444) Thrown against rear door of caboose by undesired emergency application of brakes.
- (445) Particle of sand in eye.
- (446) Caught finger between piece of freight and door frame.
- (447) Fell on slippery load of piling.
- (448) Back of hand struck by brake club while releasing hand brake.
- (449) Thrown against end ladder by sudden stop during switching move.
- (450) Lost balance and fell to ground releasing hand brake.
- (452) Stepped on small rock and sprained ankle.
- (453) Fell from moving train.
- (454) Fell from steps of caboose when slack ran out.
- (456) Fell from top of car in moving train.
- (457) Thrown against inside frame of cupola by undesired emergency.
- (458) Fell from top of moving train.
- (459) Stepped on rock and sprained ankle detraining from caboose.
- (460) Slipped on small rock and fell, spraining arm and shoulder, when boarding caboose.
- (461) Fell from car to ground when brake wheel unexpectedly released due to defect.
- (463) Stepped off end of car and fell to ground.
- (464) Finger caught between brake club and truck frame while wiring up brake beam.
- (465) Foot struck by rebounding running board.
- (466) Thrown in caboose on account of undesired emergency as train was being brought to a stop.

- (467) Lost balance and fell from top of a water car to ground.
- (468) Stumbled and fell on highway crossing detraining from caboose.
- (469) Struck by flying brake club while releasing hand brake.
- (470) Thrown to ground from caboose when it made hard coupling with standing cars.
- (471) Foreign object in eye.
- (472) Trainmen thrown in caboose by sudden stop caused by train parting due to defective draw bar.
- (473) Thrown from side of car when train backing up broke-in-two.

NEVADA.

Item

No.

Description of Accident.

- (247) Fell against cupola steps when jerk occurred as train was stopping.
- (248) Slipped on side ladder of car and fell to ground.
- (249) Finger broken when hand came in contact with coupler while separating air hose.
- (250) Fell from gangway of moving engine while detached from train and struck by truck structure of tender.
- (251) Sprained ankle alighting from train.
- (252) Hand caught between brake lever and stop on end of car.
- (253) Lost balance and fell against load machinery 21st car from engine when slight jerk of train. Occurred stopping.
- (254) Fell from car when foot slipped while preparing to set hand brake.

- (255) Sudden stop due to undesired emergency.
- (256) Fell to ground when hand slipped off hand rail while getting on running board of engine.
- (257) Fell to ground detraining from gangway ladder of locomotive.
- (258) Lost hold on side ladder of car and fell to ground.
- (259) Lost balance on caboose and fell to ground when reaching down to raise lock block of coupler.
- (260) Lost hold and fell to ground from caboose step when jerk of train occurred while stopping.

These casualties shown under these items segregated according to the cause shown will appear as follows:

Cause	Number of Casualties	
	Arizona	Nevada
Slack action.....	9	4
Sand or particle in eye.....	2	0
Operating hand brake.....	4	1
Slipped off top of car—train standing.....	2	0
Fell from moving train.....	5	6
Pinched finger.....	2	2
Slipped on rock or other obstacle.....	4	1
Thrown by jar or jerk in switching.....	2	0
Rebounding running board injured train- man.....	1	0
Brakeman fell on slippery load of piling.....	1	0
	32	14

Two of the accidents in Arizona were sand or particle in the employee's eye, while there were no such accidents in Nevada. And it will further be found upon examining

Exhibits 274 and 275 that there were 40 of this type of accidents in Arizona during the 18 years 1923 to 1940, inclusive, and only 2 in Nevada, one of which occurred while sanding out the engine. These accidents are clearly due to local conditions—the sand and dust in the air in Arizona.

Similarly the greater number of casualties in Arizona (4 in Arizona, 1 in Nevada), which occurred in the operation of hand brakes, is traced to the difference in operations or operating conditions in the two states. The total number of cars of revenue freight originating and terminating in Arizona for the year 1939 was 147,408 [Ex. 167, R. 3041], while in Nevada for the same year the number of such cars was 19,559. In other words, the number of cars of revenue freight which originated or terminated in Arizona was 7.5 times that in Nevada. This traffic requires a substantial amount of switching, placing or spotting of cars, and picking up cars. It requires trainmen to get on and off moving trains in opening and closing switches, to walk along the train in spotting and picking up cars, to open and close the couplers in setting out cars, and to set and release hand brakes in picking up and setting out cars. The Federal Safety Appliance Act prohibits the use of hand brakes on moving trains. They are used only to insure that the car remains in place after the car is placed or spotted and is detached from the locomotive or train. When a car is spotted the hand brakes are set and when it is picked up the hand brakes are released. This is true whether the car is moved to its place of destination in Arizona, or from its place of origin in Arizona, in a 50-train or in a train of 100 cars. In other words, the same number of hand brakes must be set and the same number of hand brakes released regardless of the number

of cars in the trains operated. With the percentage of traffic originating and terminating in Arizona 7.5 times that as in Nevada, it is not surprising that the casualties resulting from the use of hand brakes is four times that in Nevada. It is the result of the difference in traffic handled.

The same is true with respect to those accidents caused by stepping on or stumbling over a rock or other object (4 in Arizona, 1 in Nevada) and those caused by being thrown by a jerk or jar in a switching movement (2 in Arizona, 0 in Nevada). With the percentage of traffic originating and terminating in Arizona 7.5 times that in Nevada, necessarily many more men are required to be on the ground in spotting and picking up cars, many more switches must be opened and closed and many more cars must be coupled onto with the possibility of jars or jerks which will throw men on the car. But this is the result of the difference in traffic in the two states.

The casualties resulting from falling off the top of a standing car (Arizona 2, Nevada 0), falling from a moving train (Arizona 5, Nevada 6), and pinched fingers (Arizona 2, Nevada 2) really have no relation whatsoever to the length of the train. The total of these for the states is substantially the same (Arizona 9, Nevada 8).

Likewise the casualties resulting from slipping on slippery load of piling (Arizona 1, Nevada 0), and rebounding running board striking foot (Arizona 1, Nevada 0), have no relation to the number of cars in the train. Placing the load of piling, or the car with the defective running board, in an 80-car train would not have prevented the brakeman from slipping on the piling or the running board from striking the trainman. One was due to the

character of the load, the other to a defective running board.

There were seven slack action accidents with 9 casualties in Arizona, and 4 slack action accidents and 4 casualties in Nevada. This indicates and sustains the Appellee's contention that conditions (such as dips, hog-backs, grades and curves) which produce slack action are more prevalent in Arizona than Nevada. It also sustains the Appellee's contention that the probability of slack action with resulting casualties, and the severity thereof, increases as the length of the train increases.

All the trains on which slack action causing injury occurred in Nevada were *over 75 cars* in length, and in Arizona the trains were *63 cars or over* in length. It will also be noticed that in the two states combined there were five such accidents *on trains of over 70 cars*, with six casualties; and with respect to the six casualties, two were permanently injured, one was disabled for 137 days, and one for 80 days. Of the six casualties on long trains *two were permanently disabled*, and the remaining *four* were disabled for an aggregate of *246 days*. The seven injured on *short trains* were disabled for an aggregate period of *94 days*. This clearly demonstrates that the probability of slack action causing casualties arises, for the most part, and increases as the length of the trains exceed 60 cars, and that the severity of the shock and the resulting injuries increase as the length of the train increases.

Third, the exhibits themselves rebut any contention that the trend in improvement in casualties is caused or affected by train lengths. This is seen from a consideration for the different periods of the percentage of increase in cars per train [Ex. 22, R. 2870] in relation to the percentage

in decrease in casualties Class I railroads [Ex. 262, R. 3300], S. P.-Pac. Lines [Ex. 272, R. 3349], Arizona and Nevada [Ex. 276, R. 3371]:

	Class I Railroads	S. P.-Pac. Lines	Arizona	Nevada
<u>% Increase</u>				
Cars per train				
1939 over 1934	6.3%	3.6%	4.0% <u>decrease</u>	9.4% <u>decrease</u>
<u>% Decrease</u>				
Casualties				
1935-1939 over				
1929-1934	26.08%	10.00% <u>increase</u>	9.00%	1.5% <u>decrease</u>
<u>% Increase</u>				
Cars per train				
1934 over 1928	3.9% <u>decrease</u>	5.2%	5.1%	26.4%
<u>% Decrease</u>				
Casualties				
1929-1934 over				
1923-1928	55.00%	33.5%	32.7%	45.9%
<u>% Increase</u>				
Cars per train				
1939 over 1922	27.9%	25.8%	1.7% <u>decrease</u>	60.39%
<u>% Decrease</u>				
Casualties				
1935-1939 over				
1923-1928	66.74%	26.86%	38.7%	46.7%

This clearly shows that there is no similarity in or relation between the trend in increase in cars per train and the decrease in casualties.

(b) The Arizona-Nevada Comparison.

What we have said concerning the national comparison applies equally to any attempted comparison between Arizona and Nevada. We particularly refer to our discussions of comparisons which include the operations in Arizona before consolidation of the E. P. & S. W. and Arizona Eastern with the Southern Pacific and to the discussion of local conditions.

Concerning local conditions, as pointed out, the exhibits show that there are 20 casualties in Arizona, due to sand or particle in eye, to one in Nevada. These casualties are due to more sand and dust in the air in Arizona than in Nevada.

There is 7.5 times as much local traffic in Arizona as in Nevada. This requires switching, men off the ground to open and close switches, setting out and picking up cars, setting and releasing of hand brakes, more stops and starts and jerks and jars. As we have shown, the accidents in Arizona related to handling *local traffic* were at least 5 in Arizona to one in Nevada. This was due entirely to the fact that local traffic in Arizona is 7.5 times that in Nevada. It has no relation to the number of cars in a train. Yet in the Appellant's comparison of casualties, except slack action casualties, these sand in the eye casualties and those due to the difference in traffic are included. Such a comparison can give no possible information in respect to the relative safety of short and long trains.

The slack action accidents clearly show a greater hazard in long train operations as we have pointed out in our discussion of slack action accidents. In addition to the evidence we have heretofore pointed out in this connection, we call attention to the average cars per train and slack action accidents per million car miles, Class I railroads, Arizona and Nevada. The years shown are those where the cars per train Class I railroads is shown on Exhibit 22 introduced by Appellant [R. 2870f].

Casualties, Conductors,
Brakemen, Flagmen on
Duty—Slack Action Per
Million Train Miles

Average Cars Per Train

	National	Nevada	Arizona	National	Nevada	Arizona
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Exhibit No.	22	150	140	266	280	280
1926	45.2	66.11	52.3	2.88	.96	4.07
1928	48	68.54	52.04	2.48	5.79	2.46
1930	48.9	77.18	56.39	1.73	4.38	4.27
1932	44.4	81.06	56.76	1.26	3.96	3.24
1934	46.2	86.67	57.13	1.14	3.31	.56
1936	46.4	74.03	53	1.35	3.11	1.22
1938	47.7	78.77	55.5	1.74	3.64	.87
1939	49.1	78.46	54.8	.86	1.65	1.56

We have heretofore shown that the severity of the casualties from slack action increases with the increase in the number of cars in a train. The foregoing shows that the number of such casualties also increases.

The profile maps of Appellant's lines through Arizona and through Nevada are in evidence [Exs. 306 to 308, R. 2186; Exs. 309, 310, R. 2210]. A consideration of these profile maps will disclose to the Court that Arizona is a territory with many hogbacks and dips and that both grade and curve conditions are substantially more severe in Arizona than in Nevada. The Court will find that in the Nevada territory the curves are for the most part gradual, seldom ranging over two degrees, and usually occur on level track or only slight grades, while in Arizona the curves are for the most part sharper, ranging from two to ten degrees, and usually occur on a substantial grade. On Exhibit 302 [R. 2101] a photostatic copy of the profile of Appellant's line in Arizona between mile post 1006.3 and mile post 1011.1, Station Irene (a distance of less than five miles) will be found *no less than twenty* curves ranging from *six degrees to ten degrees*, all on

grades ranging from 0.5% to 1%. We also direct the Court's attention to the profile maps showing the territory in Arizona between Mobile and Yuma, between Tucson and Steins on the north line, and between Tucson and Rodeo on the south line. *On the entire line across the State of Nevada only four curves with as much as six degrees curvature are found—three of six degrees and one of eight degrees [Kirkbride testimony, R. 2181, 2185].*

Another difference in the two territories is in the amount of double track operated. Over 71% of the line through Nevada is double track or double track operation while only 15% of the line through Arizona is double track or double track operation [Salt Lake Division and Tucson Division time tables, Ex. 175].

These differences make comparison of operations in the two states impossible.

LOS ANGELES DIVISION CASUALTY STATISTICS.

The Appellant contended below that approximately 25.8 percent of the trains run on certain main lines of that division during four typical months of 1939, were long trains. The record nowhere shows the total number of trains operated on this division nor the relative number of short and long trains operated.

Exhibit 185 [R. 3077.] shows by states and in specific districts but not by divisions, a summary of main line freight trains operated in January, April, July and October, 1939. If this exhibit is the basis of the Appellant's contention, it does not support the contention.

First, the trains are not shown by division. For the State of California the percent of long trains operated is shown as 21.74, not 25.8.

Second, the formula used in preparing the exhibit will not support the contention. *If at any time* in its movement a train had *over 70 cars* it was *taken as a long train*—if in only one mile out of a 100-mile movement it had over 70 cars, it was counted a long train. If the formula had been reversed—that is, *if at any time* in its movement a train had *less than 70 cars* it was counted as a ~~short~~ train, the number of long trains would probably have been greatly reduced. If in a part of its movement it had less than 70 cars and in a part over 70 cars, there was just as much reason to count it as a short train as a long train.

Further, a percentage as to *main line operations only* would have no meaning because the accidents and casualties are for *all operations on the division, both main and branch line*. If 25.8 percent of main line trains were long trains (and there is nothing to sustain such contention), with the many short trains in branch line operations were considered, the percentage would probably be reduced substantially. Considering the volume of local traffic and pick-up trains handled around Los Angeles, we doubt that ten percent of all trains on the Los Angeles Division are long trains.

On sheet one of Exhibit 386 [R. 3533] appears a summary of the casualties to employees on duty and non-trespassers during the eleven year period, the average cars per train each year, and the casualties per million train and car mile. The eleven year period is divided into two periods, 1930-1935 and 1936-1940.

The average cars per train for the period 1930-1935 is 52.42, and for the period 1936-1940 is 57.81, an increase of 5.39 cars per train 1936-1940 over 1930-1935. The casualty rate for "Occupants of Motor Vehicles" was

12.09 per million freight train miles and 23.07 per million freight car miles for the *period 1930-1935*. For the period 1936-1940 it was 15.17 per million freight train miles and 26.24 per million freight car miles—an *increase* of 3.08 casualties per million freight train miles and 3.17 casualties per million freight car miles. For *all non-trespassers* the *increase* was 3.07 casualties per million train miles and 2.98 casualties per million car miles. There was also an *increase in casualties* to employees of 3.49 casualties per million train miles and 3.24 casualties per million car miles. In other words, with the *increase* in the average cars per train there was also an *increase* in casualties to both the *public* and to *employees*.

* We further call to this Court's attention that 70 of the 460 accidents were "slack action" accidents. Fifty of these "slack action" accidents were on *long* trains and only 20 were on *short* trains, although probably better than 80 per cent of the trains operated were *short* trains.

(d) New Mexico Casualty Statistics.

The record presents no basis for a comparison of accidents and casualties in Arizona and New Mexico. There is no showing of similarity of conditions sufficient to give probative value to the evidence. There is no showing as to the miles of railroad operated, the main and branch lines, the amount of traffic originating and terminating in New Mexico, and the like. It is shown that the grade and curve conditions in New Mexico are more favorable than in Arizona and that freight trains can be operated between Lordsburg and El Paso without once touching the automatic or air brake [R. 2456]. Without these conditions being shown to be similar, the comparison is meaningless.

But we direct the Court's attention to the data as to operations of long and short trains in the same territory—New Mexico.

From Exhibit 387 [R. 3548] showing casualties to employees on duty and non-trespassers 1930-1940; it will be seen that for the period 1936-1940 over 1930-1935 there was an increase in average cars per train of 2.83, an increase in casualties to Occupants of Motor Vehicles of .36 per million freight train miles and .59 per million freight car miles, an increase of casualties to all non-trespassers of .26 per million freight train miles and .39 per million freight car miles, an increase in casualties to conductors and brakemen of .91 per million freight train miles and 1.17 casualties per million freight car miles but a decrease of .42 per million freight car miles and 1.43 per million freight car miles for all employees and for casualties to all persons a decrease of .17 per million freight train miles and 1.03 per million freight car miles. In 1940, with an increase of 6.85 in the average cars per train over the previous year, the casualties to all employees increased 8.01 casualties per million freight train miles and 11.55 casualties per million freight car miles—and to all persons 8.61 casualties per million freight train miles and 12.46 per million freight car miles.

From the exhibit (sheet 9) it will be seen that there were 139 accidents during the 11 year period. Sheet 4 of the exhibits shows that 29 of these were "slack action" accidents. Eighteen were on long trains and 11 were on short trains. Five of the short trains had 70 cars. Only 3 of the short trains were less than 65 cars in length. Sheet 3 shows that there was a total of 145 casualties to all

persons, 34, or 23.46% of which were on *long* trains, although probably *not 10 percent* of all trains operated were long trains.

SANTA FE CASUALTY STATISTICS.

Exhibits 126 [R. 2986] and 300 [R. 2093] and the testimony in connection therewith show that, as to grades and curves, the conditions in Arizona and New Mexico are *not* similar. There is evidence as to the types of traffic but upon the important question of the relative bridge traffic and traffic originating and terminating in the state there is *no* evidence. Exhibit 296 [R. 3425] shows the casualties in totals by years, on the territory between Clovis, New Mexico, and Gallup, New Mexico, and between Gallup and Needles, California. There were 10 killed in the New Mexico territory to 4 in the Arizona territory. Detail of the cause of these accidents is shown, probably to show they were not due to long trains. But no detail is given from which the cause of the accident or accidents causing injuries can be determined—that is, whether they are caused by purely local conditions such as wash-outs, bridges giving away or washed out, melting snow causing track to give way, and the like. No similarity in the two territories in this respect was shown. And yet any accident occurring from these causes on a train while in operation would be included in the casualty data although due solely to local conditions. Casualties in Arizona from setting or releasing brakes, and picking up, setting out and switching local track, are undoubtedly greater than in New Mexico. Although not shown in the record, undoubtedly local traffic is much heavier in Arizona than in New Mexico. Consequently more accidents of this type would be expected.

There can be no comparison of casualties per train or car miles unless *all* facts and factors relating thereto are shown.

CHESAPEAKE & OHIO CASUALTY STATISTICS.

In addition to the failure to show the necessary similarity of conditions as a basis for and to give probative value to the evidence, pointed out in our above discussion of the Santa Fe evidence—and which applies equally to the Chesapeake & Ohio evidence—we point out two important *differences* shown by the evidence.

First, it is shown by the evidence that the greater part of the Chesapeake & Ohio traffic is *coal*, thus differing entirely from the traffic on Appellant's lines in Arizona.

Second, it appears from the evidence that, during the period covered by the exhibits, a great amount of *grade and curve elimination* took place on the Chesapeake & Ohio. An example of this is seen in the fill on which the train shown in Exhibit 160 [R. 3034] is standing. The elimination of grades and curves would have a substantial effect upon the reduction of accidents. No such elimination of grades and curves is shown on Appellee's lines in Arizona.

Further, the casualties and derailments shown are those which occurred in *all classes of service*—that is, in the *combined freight and passenger operations*. It cannot be used as a basis of comparison with operations on Appellant's lines in Arizona or with operations on any other railroad. Because *there is no similar evidence* as to operations on the Appellant's lines in Arizona nor as to any other railroad. As to all other railroads, including Appellant's lines in Arizona, *the freight and passenger casualties were segregated*.

D. Hazards of Passenger Train Operation:

(a) SLACK ACTION INCREASES AS THE LENGTH OF THE TRAIN INCREASES.

Slack action produces severe shocks and serious injuries to passengers and trainmen. The dangers from slack action, which we have discussed in detail *supra* under hazards in freight train operation, are also present in passenger train operations. While the slack on passenger trains is less per car and the brake equipment is better, these are more than offset by other factors, which enter into the consideration of the dangers from slack action in passenger trains:

1. The weight of passenger cars is from 80 to 100 tons while the average weight of freight cars is from 27 tons (empty) to 45 tons (loaded) [Exhibits 2, 4]. While the slack in a passenger car is less than that of a freight car, the weight of the passenger car is twice that of a freight car. The impact will consequently be greater in the passenger train operation.

While the brake equipment on passenger trains is better than that on freight trains, the distance the passenger car travels before the impact—the amount of slack to be taken up—is less, and the time for the brakes to apply before the impact occurs is shorter.

2. The number of persons who may be injured as a result of slack action is many times greater on a passenger train than on a freight train. On freight trains only the crew and such caretakers or deadheading employees as may be riding the train—seldom exceeding 2 or 3—are exposed to the dangers of slack action. On passenger trains in addition to the train crew and pullman employees, the passengers—perhaps 200 or 300, increasing in numbers

as the length of the train increases—are liable to injuries from slack action.

3. The passengers on passenger trains are ignorant of the dangers from slack action, ignorant of the places where and the conditions under which slack action may occur, ignorant of how to protect themselves, and in the case of old people and children, physically unable to protect themselves from slack action.

4. The distance passengers are required to travel through a moving train when en route to the diner or to get off at stations where the platforms are not of sufficient length to accommodate the length of the train increases as each car is added. This causes discomfort and inconvenience to passengers and exposes the passenger to the danger of being knocked down and injured by slack action.

(b) LACK OF NECESSARY STATION FACILITIES FOR HANDLING PASSENGER TRAINS WITHOUT PUBLIC DISCOMFORT, INCONVENIENCE AND RISK OF INJURY.

At stations where platforms are not sufficient to accommodate long passenger trains passengers are subjected to additional hazards, because (1) they must be discharged at places where the footing is unsafe; and if after night fall, in the dark; and if in inclement weather, in snow and mud; or (2) they must walk a long distance through the moving train with the possibility of being knocked down by slack action; or (3) a second stop must be made, requiring stretching and bunching of the slack, and giving an additional opportunity for injury from slack action.

(c) THE INCREASED WEIGHT OF THE TRAIN—WHICH INCREASES WITH EACH CAR ADDED—INCREASES THE HAZARD OF PASSENGER TRAIN OPERATION.

Each car added to a passenger train adds from 80 to 100 tons to the train. There is then 80 to 100 tons added to pile up on the cars ahead in case of derailment, thus increasing the possibility of serious injuries to passengers. Each car added increases the number who may be injured in case of a derailment or other accident to the train.

Long trains add to the danger to the public and to employees where it is necessary to make an emergency stop, because as the length of the train increases the difficulties of stopping in case of emergency increase. There is greater probability of injuring or killing persons at highway crossings, etc., with the probable derailment of the train and injury or death to passengers and employees. The length and weight of the train must influence the engineer in exercising his judgment. Where a crossing accident appears probable, he is compelled to choose between the possibility of injury to passengers by an emergency application of the brakes, and injuries to persons approaching the crossing. As the length of the train increases, the probability of injury to passengers on the train from an emergency application of the brakes increases.

(d) THE TIME WHICH EMPLOYEES HAVE TO GIVE TO THE CARE AND ATTENTION OF THE TRAIN DECREASES AS THE LENGTH OF THE TRAIN INCREASES.

Every car that is added to a passenger train gives added duties and responsibility to the employees which take them away from giving their care and attention to the operation of the train. Each car adds passengers whose tickets

must be taken up by the conductor. Each car adds passengers, perhaps children, women or old people, whose comforts and conveniences must be looked out for and taken care of by the trainmen. These duties require time, and such time is taken and can only be taken from the time the trainmen give to looking after the safety of the train—observing train for defects, checking signals, checking to see that engineer is observing schedule, and similar duties in protecting the safety of the train. As these duties of the trainmen to look after passengers increase, his ability to protect the safety of the train decreases.

E. Summary of Safety Argument.

The record presents an abundance of evidence to support the proposition that the Train Limit Law is reasonably adopted to the ends sought (303 U. S. 177, 190) and thus to sustain validity of the law as a proper exercise of the state's police power for the protection of the safety of the public and of employees. The airbrake instructions of both the Southern Pacific Company and the Santa Fe recognize the hazard due to slack action in train operations and that this hazard increases as the number of cars in a train increases; and that this is true both as to the number of casualties and the severity of the casualties.

Increased hazards are shown in train operations, due to the increase in the number of cars in a train, by reason of (1) the increase in the quantity and quality of strains on weak parts in equipment, and the consequent probability of accidents due to failure of equipment, (2) the increase in difficulty of communication between the employees, (3) the increase in the difficulty in observing de-

fects in the train while in motion, and (4) the increase in fear of injury and strain upon the trainmen which reduces their efficiency.

The appellant's contention that short trains increase the hazard of crossing accidents and accidents ~~due~~ to negligence of employees is shown to be without support in the evidence; in fact, it appears the contrary is true.

The appellant's "national" and Nevada evidence has little evidentiary value. On the whole the "national" evidence presents no basis for comparison with operations in Arizona. Where a fair comparison is possible it is favorable to Arizona operations. Also, the exhibits combine long and short train operations, making a comparison between the short and long trains impossible.

In Nevada appellant appears to have selected its most favorable operating territory when traffic, grades, curves, double tracking and the like are considered. But difference in these and other local conditions make any comparison with Arizona operations impossible. The evidence as to Nevada operations, however, also shows that the hazards of operation increase with the increase in number of cars in the train.

Certainly, upon the records here, it is not "possible to say that the legislative choice is without rational basis".

South Carolina Highway Dept. v. Barnwell Bros.,
303 U.S. 177, 191.

5. **The Decision of the State Supreme Court, in Reversing the Trial Court, Did Not Deny to Appellant Any Federal Right to Which, on the Evidence, Appellant Is Entitled.**

The Appellant complains that the State Supreme Court in its opinion did not discuss the evidence and specifically point out the error as to each Finding of Fact.

After the taking of evidence was closed in the trial court and the case was submitted, the Appellant and the Appellee each presented to the trial court suggested Findings of Fact, Conclusions of Law and a form of judgment. The Findings of Fact and Conclusions of Law presented by Appellant were accepted and adopted by the trial court without a single change therein so far as we are aware. The Findings of Fact cover 147 pages of the printed record herein [R. 3887-4034, incl.]

Findings of Fact should *not* state or set out the evidence, or evidentiary or subordinate facts, but should find only the ultimate facts.

Wilson v. Merchants Loan & T. Co., 413 U.S. 121.

At least 90% of the trial court's findings here are in relation to evidentiary facts. As Appellant states (App. Br. Vol. I, p. 327): "No pertinent evidence introduced by either party has been disregarded". The inclusion of this evidentiary matter in the findings of fact could not impose on the Supreme Court of Arizona or this Court the burden of reviewing all the evidence.

Upon the question as to whether or not the Train Limit Law is valid as a safety measure, the ultimate fact to be determined was whether upon the whole record "it is possible to say that the legislative choice is without rational basis".

South Carolina Hy. Dept. v. Barnwell Bros., supra.

The State Supreme Court in its opinion determined "that the *findings* and judgment of the trial court to the effect that the Train Limit Law is unconstitutional were in error" [R. 4067-4068]. (emphasis ours). A finding by the trial court that the Train Limit Law has no rational basis in safety is "in effect" a finding that the law is unconstitutional. If upon the whole record it is impossible to say that the Train Limit Law has a rational basis in safety, then it is a direct regulation of interstate commerce and invalid under the Commerce Clause of the Federal Constitution. The ultimate fact to be determined is whether upon the whole record it is possible to say that the Train Limit Law is without rational basis. *So Carolina Hy. Dept. v. Barnwell Bros., supra*, is so interwoven with the question of law as to be in substance a decision of the latter.

Norfolk & W. R. Co. v. Conley, 236 U.S. 605, 609;

Truax v. Corrigan, 257 U.S. 312, 324-325.

The State Supreme Court has determined that the trial court erred in its finding upon this ultimate fact.

Section 21-1028, Arizona Code, 1939, stating the effect to be given to findings of fact, and the decisions of the State Supreme Court cited at pages 316-319, Volume I of Appellant's brief have no application here. This section of the Arizona Code and the cases cited have to do with the ordinary civil action arising under the state laws. They have no application to the determination of a Federal question arising under the Federal Constitution. The determination of such Federal question is governed by the decisions of this Court.

"When a state court has wrongly denied a Federal right, finding that the asserted Federal right has no basis in point of fact.

"This court, as an incident of its power to determine whether a Federal right has been wrongly denied, may go behind the finding to see whether it is without substantial support. *If the rule were otherwise, it almost always would be within the power of a state court practically to prevent a review here.*"

(Emphasis ours.)

Truax v. Corrigan, supra, 257 U.S. at page 325.

And see:

Norfolk & W. R. Co. v. Conley, supra, and cases cited Appellant's brief, Vol. I, p. 236.

And the same rule or principle applies in a state Supreme Court's review of a trial court judgment. Certainly this Court will not apply one rule or principle to the review of the state Supreme Court's decision and apply another and different rule to the review by the state Supreme Court of the trial court's decision.

Conclusion.

The record clearly shows that the Train Limit Law has a rational basis in the protection of the safety of the public and of employees, and is a proper exercise of the police power of the state. It is in the permissible or concurrent field of legislation and in a field not occupied by Congress. No Federal rights of the Appellant have been denied by the decision of the State Supreme Court. We respectfully submit that the decision of the Supreme Court of the State of Arizona should be affirmed.

Respectfully submitted,

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APPENDIX.

SERVICE ORDER No. 85.

Part 95—Car Service

Length of Trains

At a session of the Interstate Commerce Commission, Division 3, held at its office in Washington, D. C., on the 11th day of September, A. D. 1942.

The Commission having under consideration operating rules, regulations, and State laws limiting the length of railroad freight and passenger trains, the Commission is of the opinion that, due to the existing state of war, an emergency exists requiring immediate action within the meaning of section 1, paragraphs (10) to (17), inclusive, of the Interstate Commerce Act.

It appearing that certain rules, regulations, practices, and laws are now in effect and are being enforced in certain states limiting the length of railroad freight trains to not more than one-half mile and limiting the number of freight cars in a railroad freight train to 70 cars, and limiting the number of cars in a railroad passenger train to 14 or 16, and that compliance by railroads subject to the Interstate Commerce Act with such rules, regulations, practices, and laws, during the present emergency, may result in congestion of tracks and terminals, wasteful use of locomotives, and interference with the free flow of traffic necessary in the present emergency; and that railroad freight trains exceeding one-half mile in length, or exceeding 70 cars in length, and railroad passenger trains

exceeding 14 or 16 cars in length may be operated in accordance with safety standards now applicable, during the present emergency, in and through such states, and that such operation will facilitate the free flow of traffic necessary during the present emergency;

Therefore, it is ordered, that:

Sec.

95.1 Length of trains

95.2 Effective period; emergency character.

AUTHORITY: §§95.1 and 95.2 issued under 40 Stat. 101, 41 Stat. 476, 49 Stat. 543, 54 Stat. 901; 49 U.S.C. 1 (10)-(17).

§95.1 *Length of trains.* From and after September 15, 1942, carriers by railroad subject to the Interstate Commerce Act shall operate their trains, when necessary for the prompt movement of freight and the clearing or avoidance of congestion by either freight or passenger trains, without regard to any rules, regulations, practices or laws now in effect and being enforced in the various states limiting the length of freight trains to not more than one-half mile and limiting the number of cars in a railroad freight train to 70 cars or limiting the number of cars in a railroad passenger train to 14 or 16.

§95.2 *Effective period; emergency character.* This order shall remain in effect during the war in which the United States is now engaged, unless sooner terminated by subsequent order of the Commission; and that this or-

der, being based upon conditions of war emergency, shall not constitute a precedent for peacetime operations.

It is further ordered. That this order shall be served upon each common carrier by railroad subject to the Interstate Commerce Act, and upon each State railroad commission, and that notice of this order be given to the general public by depositing a copy thereof in the office of the Secretary of the Commission at Washington, D. C., and by filing it with the Director of the Division of the Federal Register, The National Archives.

By the Commission, division 3.

(Seal)

W. P. BARTEL

Secretary.

SAFETY APPLIANCE ACT

Section 1

It shall be unlawful for any common carrier engaged in interstate commerce by railroad to use on its line any locomotive engine in moving interstate traffic not equipped with a power driving-wheel brake and appliances for operating the train-brake system, or to run any train in such traffic after said date that has not a sufficient number of cars in it so equipped with power or train brakes that the engineer on the locomotive drawing such train can control its speed without requiring brakemen to use the common hand brake for that purpose.

Section 9

Whenever, as provided in sections 1-7 of this title, any train is operated with power or train brakes not less than 50 per centum of the cars in such train shall have their brakes used and operated by the engineer of the locomotive drawing such train; and all power-braked cars in such train which are associated together with said 50 per centum shall have their brakes so used and operated; and, to more fully carry into effect the objects of said sections, the Interstate Commerce Commission may, from time to time, after full hearing, increase the minimum percentage of cars in any train required to be operated with power or train brakes which must have their brakes used and operated as aforesaid; and failure to comply with any such requirement of the said Interstate Commerce Commission shall be subject to the like penalty as failure to comply with any requirement of this section.

• INTERSTATE COMMERCE ACT

Section 25, Part I :

(In part)

The Commission may, after investigation, if found necessary in the public interest, order any carrier within a time specified in the order, to install the block signal system, interlocking, automatic train stop, train control and/or cab-signal devices, and/or other similar appliances, methods, and systems intended to promote the safety of railroad operation, which comply with specifications and requirements prescribed by the Commission, upon the whole or any part of its railroad, such order to be issued and published a reasonable time (as determined by the Commission) in advance of the date for its fulfillment.